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Out-of-home care experience and juvenile delinquency during transition from
adolescent to adult

By

Yang Li

A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of
MASTER OF SCIENCE

Major: Sociology

Program of Study Committee:
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Ames, Iowa

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CHAPTER 1. INTRODUCTION

The transition of youth from adolescence to adulthood is usually a difficult and painful period. This is an even more difficult time for the youth who are removed from the home of biological parents to be placed into out-of-home care. For them, they not only had the experience of maltreatment, hurt or neglected, but also are facing the uncertainties associated with being removed from the original family. Under this situation, their behavior development may be troublesome, as they may desire returning to the original home, or conflict with foster parents and siblings. As a result, such children may join a delinquency group for support. If the experience of out-of-home care affects youth behavior negatively and can promote delinquency, then out-of-home care is at least the second great tragedy in a difficult upbringing.

There is a great risk for delinquent or crime behavior among those who experience physical abuse, rejection or neglect from parents. Every year, federal, state and local governments spend tremendous sums on child welfare to protect children from maltreatment and abuse. However, how youth experience out-of-home care and whether out-of-home care effectively reduces the risk for delinquency among those who are in placement should be a noteworthy question for examination. Studies reveal several relationships between out-of-home care experience and youth delinquency. For example, there is a positive correlation between number of placements and increased delinquency levels (Runyan & Gould, 1985; Ryan & Testa, 2005; Widom C. S, 1991). As for more detailed study, only a few studies examine the delinquent behavior difference among different placements. For example, about a quarter of the youths in out-of-home care

responded with delinquency, and the most commonly reported delinquency were less serious offenses (Courtney, Piliavin, Grogan-Kaylor, & Nesmith, 2001). Children who entered kinship care have a lower estimated risk of behavioral problems than children who entered foster care, and children who moved from foster care to kinship care also showed less behavioral problems (Rubin, Downes, O'Reilly, Mekonnen, Luan, & Localio, 2008). Although these findings demonstrate variation, no study carefully examines whether the relationship between the experience in out-of-home care youth and caregiver affects juvenile delinquent behaviors.

Out-of-home care programs in the United States are mainly categorized with foster care, kinship care, group care, independent living and other placements. Maltreated youth are selected into certain placement by their own situations and court placements. To further investigate out-of-home care youth delinquency and life experience, the focus of the current study is how different types of placement affect juvenile delinquency, and investigate whether different out-of-home care experiences predict juvenile delinquency seriousness. This study explores the relationships between youth delinquency and different out-of-home care experiences from the age of 17-22. The first research question is to compare different delinquent or criminal behavior levels when youth were placed in different types of out-of-home care. This question aims to find out specific delinquency frequencies and general out-of-home care youth delinquency patterns. The second research question is to test whether out-of-home care experience affect later delinquent behaviors. And the third question is to examine whether different life circumstance predict non-violent and violent offending.

CHAPTER 2. LITERATURE REVIEW

Youth and out-of-home care services

Who are the subjects of out-of-home care program?

Who are out-of-home care youth? As noted by U.S Department of Health and Human Services, the placements and services of out-of-home care (also called foster care) programs are available to “children and families when children must be removed from their homes because of child safety concerns, as a result of serious parent-child conflict or maltreatment or serious physical or behavioral health conditions that cannot be addressed within the family” (U.S. Department of Health and Human Service, 2011). Usually, children are selected to receive out-of-home care due to a risk of maltreatment, including neglect and physical or sexual abuse (U.S. Department of Health and Human Services, 2003). More specifically, most cases happen when family members inflict physical and emotional injury on children because of anger, cruelty, poor judgment about discipline, sexual abuse, abandonment, failure to provide adequate shelter, clothing, nutrition, supervision, health care, love or attention. Many children have experienced both sexual and aggressive behaviors, but most of them have more neglect than abusive treatment.

Obviously, the children who are in out-of-home care program have more difficult and complex childhoods than others. According to Lee and Whiting’s introduction (2007), the majority of foster care children began to experience neglect or abusive behaviors under age six; on average they were infants, toddlers, or preschoolers. These children not only have possibly suffered physical harm, but also may have experienced

trauma that affects psychological development. They may exhibit the following short or/and long term destructive effects:

- *“Inability to trust adults, peers, and the world;*
- *Failure to develop physically, psychologically, and socially;*
- *Falling behind in physically, cognitive, language, self-regulation, and social skill;*
and
- *Higher probability of later demonstrating learning and social problems in school, hostility, substance abuse, and delinquency.”* (Lee & Whiting, 2007, p. 5)

Beyond these possible psychological and learning problems, those children who have lived with neglect or/and abuse in the family are more likely to later engage in a delinquent or criminal life. Many studies have demonstrated that there are links between child maltreatment and subsequent delinquent behaviors (Herrera & McCloskey, 2001; McCord, 1983; Smith & Thornberry, 1995; Widom & Anes, 1994; Maxfield & Widom, 1996; Polusny & Follette, 1995; Smith, Ireland, & Thornberry, 2005). Maltreated children have a high risk developing problems and children who are exposed to extensive maltreatment exhibit higher rates of delinquency (Smith & Thornberry, 1995; Maxfield & Widom, 1996; Smith, Ireland, & Thornberry, 2005). For example, girls with a history of physical child abuse were arrested for violent offending more than boys with similar histories (Herrera & McCloskey, 2001) and childhood sexual abuse victims were more likely to be arrested for prostitution as adults than other abuse and neglect victims (Widom & Anes, 1994). Sexually abused persons have a greater tendency toward revictimization through adult sexual assault and physical partner violence (Polusny &

Follette, 1995). Relationships between child maltreatment and delinquent behaviors may vary by gender, race, age, and recurrence of maltreatment, however.

What is out-of-home care?

In order to protect children from continuing neglect or abusive treatments, out-of-home care programs provide several possible and diverse placements and services to remove children from their homes. The process of out-of-home care begins when a court decides that the maltreatment or other conditions are so extreme that it is too dangerous for children to continue to live with their parents. Instead of remaining in the custody of parents, the children may live in a number of possible circumstances, including family foster care, relatives' homes, treatment foster care, residential/group foster care, emergency care, shared family care and APPLA (Another Planned Permanent Living Arrangement), or LTFC (Long-Term Foster Care). There is no strict distinction between out-of-home care and foster care, but as the Administration for Children and Families (U.S. Department of Health and Human Services, 2011) explains, many communities use the phrase "foster care" for all the placements that out-of-home care offers. Some others only use "foster care" to refer to care in a family home. It is important to distinguish these two definitions of "foster care", because in most situations, the definition of "foster care" specifically indicates family care, and "out-of-home care" indicates general foster care, including family care, kinship care, institutional care and others.

Placements in out-of-home care provide varying circumstances to protect and satisfy the children who are removed from their parents' homes because of maltreatment. Family foster care, also called traditional foster care, provides nonrelative adults who have been

trained, assessed, and licensed or certified to shelter and care for children (U.S. Department of Health and Human Services, 2011).

Kinship care provides placement with relatives or close family friends. It is different from family foster care, and is preferred by many locates because it maintains the children's connections with their families and support networks. Another notable feature of kinship care is that the caregivers from kinship care may undergo a training and licensure process in more formal programs. Alternatively, family programs can involve only an assessment process to ensure the safety and suitability of the home and general availability of supportive services for the child (U.S. Department of Health and Human Services, 2011).

Though child welfare workers prefer that children in out-of-home care live with relatives or foster families, some children need special physical or psychological care because of the former maltreatment or other reasons. In this case, residential or group care can provide structural and professional services and provide an expert staff working with children for particular needs. Group care settings include community-based group homes, campus-style residential facilities, and secure facilities (U.S. Department of Health and Human Services, 2011).

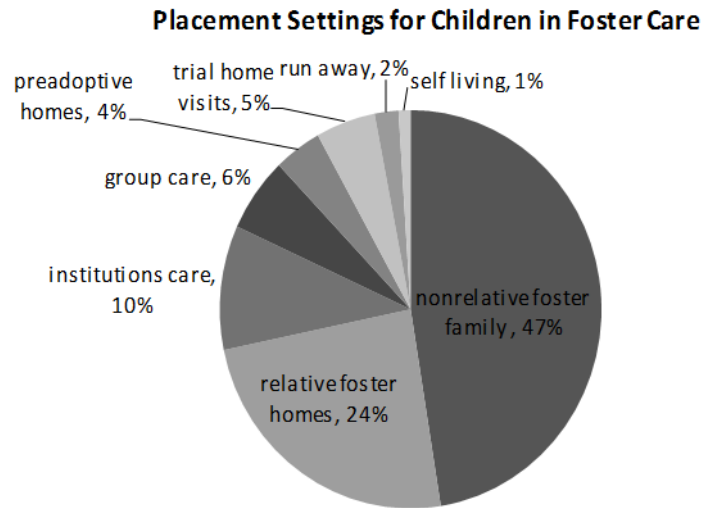
Other foster care options include treatment care which accepts children who have certain medical or behavioral needs, like HIV children. Emergency care is provided to children who need to be removed from the home immediately in order to keep the children safe until a more appropriate placement is located. Shared family care refers to a reunification model to help parents and children to live together again; APPLA (Another Planned Permanent Living Arrangement) and LTFC (Long-Term Foster Care) are

designed for the children who have no good placement options with a temporary or permanent family.

Independent living service, another form of placement, is open to older children and youth in out-of-home care, and is designed to help them prepare for self-sufficiency in adulthood. They can receive these services while they are using the other types of out-of-home care placements. Independent living services usually include assistance with money management skills, educational assistance, household management skills, employment preparation, and other preparations for adult life.

According to the foster care statistics from 2010¹, in FY 2008, 463,000 children were in foster care; 273,000 children entered foster care; and 285,000 children exited foster care. On September 2008, 47 percent of children were in nonrelative foster family home (traditional foster care); 24 percent of children were in relative foster homes(kinship care); 10 percent of children were in an institutions' care; 6 percent of children were in group homes; 4 percent of children were in a preadoptive home; 5 percent of children were in trial home visits; 2 percent of children in foster care had run away and 1 percent of children in foster care were in supervised independent home living situations.

¹ This report presents the data from both FY 2000 and FY 2008. In this paper we only use the data from FY 2008.



Comparison between foster care and kinship care

Among all the above out-of-home care programs, foster care and kinship care are the predominant forms of substitute care. From recent years, kinship care is growing rapidly because of a number of factors. Such as the supply of foster care is shrinking, and the need of kinship placement is increasing. Social workers see more benefit from kinship placement and kinship family today receive greater financial support (Berrick, 1998). Even under this situation, the proportion of children in the traditional foster care is still the largest one.

The families of kinship care and foster care show tremendous diversity. By presenting a comparison table from Berrick and colleagues' study (1994), foster parents and kinship parents supply quite different living situations to out-of-home care youth.

Characteristics of Kinship Foster Parents and Nonkin Foster Parents Serving California's Foster Care Caseload from 1989 to 1991

	Kinship Parents	Foster Parents	Significant Difference
Largest number sampled	246	354	
Household characteristics			
One adult in the home	52%	24%	$p < 0.001$
Owns home	53%	85%	$p < 0.001$
Number of foster children	2.5	2.8	no difference
Household income (including foster care payments)	\$32,424	\$51,320	$p < 0.001$
Female caregiver characteristics			
Formal education			$p < 0.001$
High school or less	47%	33%	
Some college or trade school	49%	46%	
College graduate or more	4%	21%	
Employed outside home	48%	37%	$p < 0.001$
Ethnicity			$p < 0.001$
African American	43%	22%	
Caucasian	34%	63%	
Hispanic	17%	9%	
Other	6%	4%	
Age	48 years	46 years	$p < 0.05$
Health			$p < 0.001$
Excellent	31%	46%	
Good	49%	47%	
Fair or poor	20%	7%	

Compared to foster care parents, kinship care parents are generally older and less financially stable, have less education and poorer health; they are more likely to be single parents (Berrick, 1998). Furthermore, even though kinship families and foster families provide similar levels of safety, support and supervision to children, kinship families may still be impoverished and lack resources and training. Foster care parents usually have greater knowledge, quality and resources to improve on childrens' development (Berrick, 1998), and they are better prepared than kinship parents to handle emergency situations (Berrick, 1997)

One incomparable strength of kinship care is that it maintains children's connections to biological parents. Kinship care plays a crucial role in promoting and maintaining

close relationships between foster children and their biological parents (Berrick, 1997). Also, evidence shows that children in kinship care had a more stable placement history (Berrick, 1998).

Life in out-of-home care

Many studies have revealed that the maltreatment experience affects youths' later behaviors, and the government has invested considerable effort to protecting and preventing continuous family maltreatment. According to the Child Welfare Policy Database, child neglect and abuse cause great cost on government budgets. In federal fiscal year 2006, almost \$26 billion in federal, state and local was spent on child welfare in the United State (Ross, 2010). However, the most important concern should be the evaluation of whether out-of-home care services provide youth with a normal and healthy living environment during the transition from adolescence to adulthood. We expect that children's life in out-of-home care programs can give them a happy future and healthy beginning, but if youth in out-of-home care experience danger or neglect, they may show a higher level of antisocial attitudes and anti-social behaviors are almost sure to follow. The evaluation of out-of-home care placement needs careful consideration.

Satisfaction

Children entered in different out-of-home care services apparently have differing levels of satisfaction and distinct behavior patterns. For example, children in kinship care have more closeness with "parents" than those who live with nonrelatives in family foster care (Wilson & Conroy, 1999). Children who are placed into kinship care have fewer

behavior problems than children who are in traditional foster care (nonrelatives family foster care) (Rubin, Downes, O'Reilly, Rekonnen, Luan, & Localio, 2008). Children who are living with nonrelatives in foster care also have high levels of satisfaction and perceived safety when compared to children who are in group care (Wilson & Conroy, 1999). Courtney et. al (2001) additionally found that children's satisfaction towards social workers is lower than satisfaction level toward parents in nonrelative foster families. Children who are living in group care clearly have less satisfaction and feel less attachment to social workers than youth who are living with nonrelative family or kinship family. This suggests that satisfaction levels with services and the foster care process may be contingent on the type of placement.

Criminal behavior

A number of studies have examined out-of-home care services, as a societal intervention, and their impact on the subsequent development of juvenile delinquency. Ruanyan and Gould (1985) showed that there is a high risk of committing criminal assault among foster care children, and an increased number of foster home placements correlated with increased numbers of delinquent behaviors. The conclusions also indicate that the instability of foster care placement contributes to a high risk of criminal behaviors, "foster care placement of maltreated children appears to have a clearly detrimental effect on the child victims" (Runyan & Gould, 1985, p. 7). Similar findings were found by Ryan & Testa's (2005) and Widom (1991). Ryan & Testa's study, compared those who never entered a foster care placement and children with at least one placement in foster care and found that the later were more likely to exhibit delinquency;

the effect was strongest for males. Both studies neglected that placements can be a factor that increases the risk of criminal behavior. Other views consider that the high positive correlation between instable placements and criminal behaviors can be explained out-of-home care children's initially high level of criminal behavior and that subsequent behavior is affected by the high number of placements. Here, it is the earlier behavior problems caused by parental maltreatment that lead children to many placements (Cusick, Courtney, Havlicek, & Hess, 2010; Widom C. S., 1991).

This finding is challenged by other studies about out-of-home care that show significant lasting effects. Rubin, Downes, O'Reilly, Rekonnen, Luan, & Localio (2008) concluded that "children in early kinship care were more likely to be at lower risk for placement instability than both children in late kinship care and general foster care only (p. 552)." Moreover, youth in group care during the ages of 17-18 commit 80% more crime than the average for others in traditional foster care (Cusick, Courtney, Havlicek, & Hess, 2010). Based on the above findings, we can see that there may exist different negative life impacts within different types of placement. Yet, the enduring influence of placement type remains a point of controversy.

Clarifying the relationship between out-of-home care and the risk of criminal behavior is troublesome. On the one hand, youth who have lived in a number of out-of-home care placements may exhibit serious delinquent or criminal behaviors before placement and need placement again and again. On the other hand, there is the possibility that out-of-home care service is a path way that leads to subsequent criminal behaviors. The basic mission of out-of-home care system is to remove children from harmful environments, to provide a healthy life and to guide children toward proper behaviors.

Consequently, out-of-home care service has the function and responsibility to reduce the risk of criminal behavior, no matter whether it is caused by earlier life or is a manifestation of foster care effects.

Maltreated youth and delinquent behaviors

Research on risk factors and prevention of youth violence show a greater risk for aggressive behavior and antisocial behaviors among those who experience physical abuse or rejection and neglect from parents (Dahlberg, 1998; Fraser, 1996; Borum, 2000). According to Cusick and colleagues' practical findings, youth who are 16-17 years old and were in out-of-home care at least one year before because of neglect or abuse, report higher involvement in delinquent or criminal behaviors than the general majority youth. For most offences, youth in out-of-home care engage in at least twice that of the comparison group for both the minor delinquent and criminal behaviors. The offending pattern curve has highest delinquency level at ages of 17-18 and declines later into early adulthood. This general offending curve has fewer differences between out-of-home care and normal peers, but the behaviors of damaging property, stealing something worth more than \$50, taking part in a group fight, and pulling a knife or gun on someone are more reported from youth in out-of-home care. At the age 19, youth in out-of-home care engaged in more violent offending, with "nearly a quarter participating in a group fight and six percent having pulled a knife or gun on someone (Cusick, Courtney, Havlicek, & Hess, 2010, p. 35)." In the 21-22 age group, there is less difference between out-of-home care youth and their peers, but they differ significantly on some offenses, like damaging

property, burglary, and pulling a knife or gun on someone (Cusick, Courtney, Havlicek, & Hess, 2010).

Although youth in out-of-home care service reported some delinquent or criminal behaviors more than their peers at some ages, the overall delinquency curve is no different compared to the normal majority. Both out-of-home care youth and normal peers show a pattern of delinquency reaching the highest level during late adolescence and declining during the early transition to adulthood. This behavior pattern matches what criminologists describe as the “age-crime curve”. During adolescence, delinquent behaviors onset around the age of 12 or 13 where delinquency shows a sharp and steady incline (Beaver, 2009). During middle adolescence, almost all youth are involved in at least one minor delinquent act, like alcohol drinking or smoking. Later into the ages of 18 and 19, the delinquent behaviors begin to decrease sharply and by the mid-to-late twenties most people who previously conducted delinquent behaviors desist and return to normal behaviors.

When we examine out-of-home care children’s delinquent behavior, we can see extraordinary phenomenon. The overall age-crime curves from both normal youth and maltreated youth are almost identical. However, we see from Cusick and colleagues’ study that youth in out-of-home care have more often engaged in some delinquent or criminal behaviors compared to general peers at some ages, like taking part in a group fight, pulling knife or gun on someone, damaging property and going into a house to steal something. Also, we see that some youths in group care have more violent behaviors compared with children in other out-of-home care situations, like taking part in a group fight and pulling a knife or gun on someone. This raises important questions. Since all

maltreated children have a high risk of violent behaviors, why are differences between out-of-home care placements apparent? Why do behaviors happen more frequently at the same ages in some care situations than others?

To help clarify, if not completely answer, these questions we can adapt strategies from extant studies on juvenile delinquency, and apply these strategies to analyze variation in the out-of-home care population.

Maltreatment, Family and Childhood

A child's social development is deeply rooted in very complex interactions with friends, family, peers, teachers and neighborhoods (Fraser, 1996). Children's behavior problems have long been considered precursors of juvenile delinquency and adult criminality (Broidy, et al., 2003). A number of studies indicate that disruptive or troublesome behaviors in childhood can predict delinquent or criminal behaviors in later adolescence and adulthood, including violent offending and non-violent offending (Broidy, et al., 2003; Fraser, 1996; Herrenkohl, Maguin, Hill, Hawkins, Abbott, & Catalano, 2000; Wilson, Stover, & Berkowitz, 2009; Tremblay, 2000). For example, physical aggression and violent behaviors, the most socially costly acts, show remarkable continuity during life (Broidy, et al., 2003; Fraser, 1996).

The National Research Council defines violence as "behaviors that intentionally threaten, attempt, or inflict physical harm on others" (Council, 1993). This type of behavior has characteristics that distinguish it from minor delinquent behaviors. Illegal violent behavior includes physical assault, threatening behavior, robberies, possessing an offensive weapon, and other physically harmful behaviors. Unlike violent behaviors,

nonviolent behaviors purportedly have less physical harm. For example, stealing, burglary, vandalism, fraud and drug use are nonviolent acts. Many scholars consider aggressive behaviors to be generated in early childhood and to exhibit a great deal of stability across time (Fraser, 1996; Farrell & Flannery, 2006; Herrenkohl, Maguin, Hill, Hawkins, Abbott, & Catalano, 2000; Patterson, DeBaryshe, & Ramsey, 1989; Reid & Patterson, 1989).

Factors that lead to youth violence are complex and developmental. And some investigators indicate that the risks relating to youth violence may play different roles at different development stages (Dahlber & Potter, 2001; Herrenkohl, Maguin, Hill, Hawkins, Abbott, & Catalano, 2000). Among the multiplicity of social factors that have significant effect on child development, family is considered the most crucial element in shaping early childhood behavior (Fraser, 1996; Farrell & Flannery, 2006). Those children who are more violent often hail the families where parents did not supervise children consistently, used harsh punishment, exhibited neglect in rewarding and placing limits, and where negative parent-children relationships are observable (Patterson, Capaldi, & Bank, 1991).

As Fraser explains (1996), children often react to parents' requests undesirably, such as when parents ask a to turn off the TV and crying or yelling occurs. At this moment, unskillful parents usually implement the coercive method to handle the child-parent interaction. Because coercion is modeled and acquiescence frequently follows resistance, children learn that aggression pays. Children will increase the frequency of aggressive strategies in following interactions, and gradually children will escape punishment and more often continue to confront parents' management. Without intervention, in the long

run, aggressive behavior will continue to increase. This is a relatively common family interaction process.

A more serious situation is children living with an abusive or neglectful family and this may lead to more problematic behaviors during the following years. For example, Dembo, Williams, Wothke, Schmeidler and Brown (1992) found that child maltreatment experiences were stronger predictors than socioeconomic status of delinquent behaviors. Research suggests that children that witness violence or physical abuse during childhood have a risk of violent behavior during adolescence as much as 40 percent higher (Elliott, 1994). It appears that children who grow up in families where violence and other antisocial behaviors are modeled consistently by siblings or parents, are more likely to engage in violence. Living with a family member with antisocial norms and values, also has a negative effect (Herrenkohl, Maguin, Hill, Hawkins, Abbott, & Catalano, 2000). This is partly because aggression and violence are modeled for children frequently. As a result, these children lack effective internal controls (Wilson, Stover, & Berkowitz, 2009). Also, children exposed to trauma and violence have impaired neurological structures and physiology related to stress responses, affect regulation, memory, social development, and cognition (DeBellis, et al., 1999; Glaser, 2000). As DeBellis and colleagues' (1999) review states, children who suffered from maltreatment in the form of neglect, physical abuse, sexual abuse or emotional maltreatment, have problems in delay and exhibit failure of multisystem developmental achievements in behavioral, cognitive and emotional regulation. Maltreated or neglected children have diminished recognition of norms and inhibitions. Consequently, behaviors during later adolescence are built on a poor foundation and lead to relatively unchecked individual will.

Peers and Adolescence

Later into adolescence, youths are exposed to a more complex society beyond the family environment. Among a number of risks predicting youth violence, several factors can be identified as having a strong relationship with adolescent delinquency. These include: individual factors (like biological and psychological factors), family, peers, schools, and community (or neighborhood). As Fraser (1996, p352) summarizes:

“For children who grow up in neighborhoods where schools are weak, where opportunities for success in conventional activities are blocked, where adults are committed to illicit activities, and where gangs offer alternative social roles and financial rewards, violence may be a product of social context in which force and coercion are used routinely to resolve disputes and protect property. Gang-related violence, in particular, appears to be more strongly associated with local economic, school, and peer factors than with biological and family factors.” (Fraser, 1996, p. 352).

In the period of adolescence, youth may experience the demands of physical, psychological and social pressures. They begin to distance themselves from the parental authorized world, and to develop new identities and independence. The first key factor in transforming family-centered life to socially involved life is peer relationships. A number of studies indicate that peer relationships play an extremely significant role in understanding and assessing youthful aggressive behavior (Borum, 2000; Fraser, 1996; Elliott, 1994; Herrenkohl, Maguin, Hill, Hawkins, Abbott, & Catalano, 2000; Dahlberg, 1998). The factors of early exposure to violence, weak self regulation, negative family controls and aggressive behavior tendencies can influence youthful choices of which type

of friend they want. There are two results of “making friends”. One result is to be accepted by the group, and if the support from friends is positive, it definitely can shape adolescent’s emotional and social development well; but if the feedback from friends is negative, especially if peer demands for conformity include strong social pressures for engaging in risk behaviors, the risk of antisocial behaviors is exacerbated. Usually, the delinquent behavior in a group is not solely an individual decision; more often it is a group delinquent phenomenon (Dahlberg & Potter, 2001; Dahlberg, 1998). This kind of group phenomenon was proved by Thornberry and colleagues’ study (1993). Their study showed that compared to nongang members, gang members have lower rates of delinquent behavior before they enter a gang, and have higher rates of delinquent behavior when they are in gang. Moreover, they are back to lower rates of delinquent behavior when they left gang.

Within a group, delinquent or violent behaviors show up and are accepted gradually, violent behavior is then encouraged and rewarded; eventually, one’s group processes shape justifications for crime (Elliott, 1994). Youth rejected by peers also are more likely to join delinquent peer groups (Dahlberg & Potter, 2001). In order to be accepted by delinquent groups, youth are likely to engage in behaviors that show common interests with delinquent peers, including mild delinquency. In the extreme case of gang involved youth, friendship often is developed with heavy delinquency, and in some cases, violent behavior is respected as ritual and establishes hierarchy (Elliott, 1994).

Aging into Early Adulthood

As Cusick and colleagues' (2010) demonstrate, the pattern of offending among youth by age is almost the same as that in the general population, as offending declines when entering early adulthood. The general offending pattern therefore is worth addressing .

Moffitt's classic study on antisocial behaviors divides delinquency behaviors into two types: adolescence-limited and life-course-persistent (Moffitt, 1993). Moffitt hypothesized that life-course-persistent delinquents could be distinguished from adolescence-limited ones in terms of neuropsychological deficits, especially in verbal skills and executive functions, biologically based personality factors and environmental adversity. Adolescence-limited delinquents, on the other hand, were hypothesized to engage in antisocial behaviors as a social group phenomenon. We see from the factors related to life-course-persistent offending that environmental adversity perhaps is the most feasible place for intervention. Environments may be easier to change than stable thinking or biology. As Elliott's early review indicates, the successful transition into adult roles, like employment, marriage and parenting, reduces the chance of violent behaviors (Elliott, 1994). He points out that the rate of crime continuity was low after youth entering into adulthood, and there were no differences in rate of crime continuity by race among those people who were employed at age 21. This finding suggests that in adulthood, environmental influence has more powerful affects than other biological or social factors.

Factors such as poverty, relationship difficulty, lack of skill, and drug or alcohol abuse may directly contribute to alienation among adolescents, but positive social ties to

work and marriage help adults desist from crime (Sampson & Laub, 1990). Youth with high aspirations to advance educationally and occupationally were much less likely to engage in deviant behavior, use alcohol excessively, or be arrested at ages 17-25. These findings speak to factors that are likely to affect prospects for later law abidance and to diminished life chances for those who lack early stabilizing influences of the family.

Crime risk and out-of-home care youth

Youth who experienced maltreatment have a higher chance to grow into delinquency during later adolescence than normal peers. Based on current U.S. Department of Health and Human Services, most children who were removed from biological family are because of maltreatment. 90% of out-of-home care youth are placed in nonrelative foster family, relative foster homes, institutional care and group care. And each out-of-home care placement may have special features affecting children from different perspectives as discussed in literature review.

Family influences may be a priority consideration in shaping future behavior. It is necessary to consider the non-biological-parental family's educational pattern, the parental and sibling's relationships, community environment and the financial situation for supporting future education to model fully the effects of placement and family for those from non-conventional child rearing situations. For those in institutions and group care programs, peers influence, caregiver attitudes, motivation towards further education, and job preparations may play significant roles in shaping youth behavior. As we see from the literature review, youth living in group care and institution care have the lowest

satisfaction and exhibit the most frequent delinquent behaviors (Cusick, Courtney, Havlicek, & Hess, 2010).

Different from traditional foster family care, institutional care and group care which supply out-of-home care youth living environment, independent living service supplies youth living skills help with money management, educational assistance, employment preparation and other services. Youths who access independent living services have a decrease in violent behavior (Cusick, Courtney, Havlicek, & Hess, 2010). Unfortunately, only about 2% youths experience self-living service; even though this service can be received while youths are receiving other types of placements.

Contribution of the current study

Definitely, not all youth who are in out-of-home care program show delinquent behavior problems. Also, not all delinquent behaviors of out-of-home care children can be explained by a single or small number of factors. Some of those receiving out-of-home care have safe and normal transitions into adulthood. The focus of this study is to examine life and transition differences by different out-of-home care experience.

This study follows the tradition established by the longitudinal study of Gretchen Ruth Cusick, Mark E. Courtney, Judy Havlicek and Nathan Hess's study(2010) about how out-of-home care children fare during the transition to adulthood. The original study examined which factors are predictive of criminal behavior and criminal justice involvement among the youth who are in out-of-home care programs. Their study has several significant findings about youth during the transition from adolescence to early adulthood in out-of-home care programs. First, they found that when youth were at age

17, the proportion of youth in out-of-home care engaging in each of 10 types delinquent behaviors was at least twice that of general youth. Differences were especially large for steal something less than \$50, hurt someone badly and participation in a group fight. At age 19, the proportion damaging property, stealing something worth more than \$50, taking part in group fight, or pulling a knife or gun on someone still are higher than the general youth population. When respondents were 21-22 years old, there were fewer offending differences between foster youth and general peers but damaging property, going into a house to stealing something, and pulling a knife or gun on someone still exhibited significant differences.

The pattern of offending by services received needs to be examined because every out-of-home care service has a particular function and mission, and youth in different out-of-home care placements may have different life experiences. Moreover, whether satisfaction can be a factor related to delinquency seriousness has never been tested by former studies. Age at first entry and number of placements youth had may be additional key factors to test how out-of-home care experiences correlated with later delinquency. This study also examines the relationship between out-of-home care experience and delinquency seriousness.

Violent offending is considered as more socially cost and continuous for those who commit it (Broidy, et al., 2003; Fraser, 1996). If we can find out that life experience in out-of-home care placements predicts non-violent or violent offending differentially, it may be practical for out-of-home caregivers or administrators to reduce offending risks purposefully.

Research questions

1) During the transition from adolescence to early adulthood, do youth who were placed in different types of out-of-home care show different delinquent or criminal behavior levels?

Since Cusick and colleagues' study (2010) has shown that the general delinquent pattern among youth in out-of-home care has no significant effect on age-crime curve, that is delinquency increases during adolescence, reaches a peak around age 16 (property offences) and 18 (for violent offenses) and then declines thereafter (Hirschi & Gottfredson, 1983). Yet there may be significant differences in magnitude, and these may vary by placement type. The first research question aims to find out what are the delinquent or criminal behavior differences among youth who were placed in different out-of-home care services.

I will examine four different out-of-home care placements: foster care, kinship care, group care and independent living or other care and their effect on offending.

2) During the transition from adolescence to early adulthood, do out-of-home care living experiences, including different placements life, caregiver closeness, age at entry and number of placements, have significant relationship with youths' delinquency seriousness?

According to Wolfgang and colleagues' study (1985), criminal or delinquent behavior can be ranked according to their severity. For example, a stabbing or rape resulting death is considered very serious criminal behavior by the public. This study aims to analyze the pattern of how out-of-home care experience, such as age at entry, caregiver closeness and number of placements, affect youth delinquency seriousness.

This research question is valuable because the study sample were first interviewed at the age of 17-18, and this age is crucial for studying high delinquency levels in adolescence. By controlling family background and delinquent behavior before age 17, I can examine how out-of-home care experience affects later delinquent behavior and whether these conditions affect occurrence of serious offending. To do this, I score criminal and delinquent behaviors for seriousness, and then run linear regression models to predict these seriousness scores.

3) Among out-of-home care youth, do different placement types predict non-violent offending and violent offending?

The final research questions examines the overall patterns of non-violent offending and violent offending when youth were placed in out-of-home care at age of 17-18 in this study. From the public's view, violent offending is considered as more serious than non-violent offending. According to Farrington and colleagues' investigation (1996), crime seriousness scores above the mean are tend to be violent, and non-violent offending tends to be with ranked low seriousness scores. The original data set contains categorical variables to ask youth whether they engaged in any non-violent or violent offending, so the potential predictive relationships between foster care, kinship care, group care and independent living or other care to non-violent offending and violent offending easily can be tested.

Hypothesis

H1: By setting independent living or other care as a reference group, foster care and kinship care and group care have significant relationships with youth delinquency seriousness.

H1-1: Foster care has negative relationship with delinquency seriousness at wave 1, wave 2 and wave 3 by comparison with the reference group.

H1-2: Kinship care has negative relationship with delinquency seriousness at wave 1, wave 2 and wave 3 by comparison with the reference group.

H1-3: Group care has positive relationship with delinquency seriousness at wave 1, wave 2 and wave 3 by comparison with the reference group.

H1-4: Reference group of independent living or other care has positive relationship with delinquency seriousness at wave 1, wave 2 and wave 3.

H2: Age at first entry into out-of-home care has a positive relationship with youth delinquency seriousness at wave 1, wave 2 and wave 3.

H3: The number of foster care and group home placements has a positive relationship with youth delinquency seriousness at wave 1, wave 2 and wave 3.

H4: Caregiver closeness has a negative relationship with delinquency seriousness.

H5: Youth in kinship care are less likely to conduct violent and non-violent offending.

H6: Youth in foster care are less likely to conduct violent offending, but more likely to conduct non-violent offending.

H7: Youth in group care are more likely to conduct both violent and non-violent offending.

H8: Youth in independent living or other care are less likely to conduct violent and non-violent offending.

CHAPTER 3. METHOD

In this study, quantitative research methods were employed to test general relationships between youth delinquent or criminal behavior and out-of-home care experiences. This study used secondary data analysis for the purpose, because an available data set contains suitable variables.

Data and sample description

This study used the data from The Midwest Study of the Adult Functioning of Former Foster Youth , which is a longitudinal panel study supported by the state public child welfare agencies in Illinois, Iowa and Wisconsin, and by Chapin Hall at the University of Chicago, and the University of Washington.²

Youth were selected into the sample based on three criteria: (1) they reached the age of 17 years old while in out-of-home care (2) they had been in care for at least one year prior to their 17th birthday, and (3) they were placed in out-of-home care for reasons of abuse or neglect rather than delinquency. There are total 767 youths in this study. This sample is useful for present purposes because : (1) age 17 is a key age point for delinquent behaviors which reach the highest level during adolescence. (2) respondents were selected at the age of 17 while they were in out-of-home care allowing for easy control of former placement type and number of placements (3) youth were selected because of maltreatment or neglect rather than delinquency, this ensured that the former delinquency variable was at least roughly controlled.

There are two source of data for the original study. One is survey data which were directly from interviews over three waves. And another supplement data source is the

² For a more complete description of the study and the data, see Cusick, Courtney, Havlicek and Hess (2010).

official arrest data from each state indicating that youth could be identified based on interviewees' information. In this study, I only used self-report data.

Investigators traced this sample across three waves. The first wave was conducted during May 2002 to March 2003. There were 730 out of 732 valid youth respondents who were 17 and 18 years old and who answered delinquency questions (N=730). The second wave was conducted during March 2004 to December of the same year. There were 574 of 603 located respondents who were 19 and 20 years old and who responded to delinquency questions. Compared to wave 1, 156 persons have missing data for any questions about delinquency (N=574). The third wave was conducted during March 2006 to January 2007, there were 504 out of 590 located respondents who were at 21 years old and who responded to delinquency questions. Compared to wave 2, there were a total of 70 persons that have missing data for the follow-up delinquency questions.

The original study has 85 variables over three waves. Variables at wave 1 mainly covered 4 topics: 1) personal background information 2) life experience before entering out-of-home care 3) delinquent behavior at age 17-18 while in out-of-home care and 4) family closeness and social bonds. At wave 2 and wave 3, variables only covered behavior patterns and social bonds, including 10 specific delinquent behavior items, self-report arrest, education status and employment status. My study focuses on out-of-home care experience and delinquent behaviors.

Variables

Dependent variables

The main purpose of this study is to examine how youth delinquent behaviors are predicted by out-of-home care life experience during the transition from adolescence to early adulthood. The dependent variables are delinquent behaviors.

There are ten delinquent behavior items: (1) *deliberately damaged property*, (2) *steal something worth less than \$50*, (3) *steal something worth more than \$50*, (4) *go into a house or building to steal something*, (5) *sell marijuana or other drugs*, (6) *hurt someone badly enough to need medical care*, (7) *use or threaten to use a weapon to get something*, (8) *take part in a group fight*, (9) *pull a knife or gun on someone* and (10) *shoot or stab someone*. For each variable, if the respondent reported this behavior during the past 12 month when he/she responded this question, the variable was coded as “1(Yes)”, and if he/she did not conduct this behavior, the variable was coded as “0(No)”, missing data was coded as “-9”.

Delinquency seriousness variable: the dependent variable is created from the original ten delinquent behavior items recoded for seriousness. Following Wolfgang and colleagues’ research on crime seriousness (1985), I categorized respondents into four categories of seriousness based on the behaviors that were ranked by Wolfgang’s evaluation. In Wolfgang’s study, shoot or stab someone and pull knife or gun on someone are listed as the most serious criminal behaviors. Entering a house or building to steal something, sell drugs, hurt someone badly enough to need medical care, use or threaten to use a weapon to get something, take part in group fight are listed as middle ranking. And deliberately damaged property, steal something less than \$50, steal something more than \$50 are

listed as lower ranking crimes. Consequently, ten delinquent or criminal behavior items in my study were categorized into 4 levels of seriousness as following: No delinquency, Minor delinquency (deliberately damaged property, steal something less than \$50, steal something more than \$50), Moderate delinquency (go into house or building to steal something, sell drugs, hurt someone badly enough to need medical care, use or threaten to use a weapon to get something, take part in group fight) and Serious delinquency (shoot or stab someone and pull knife or gun on someone). The “No delinquency” category was coded 0, minor delinquency as 1, moderate delinquency as 2 and serious delinquency as 3. Then for each youth at each wave, I summed all the crime committed to arrive at a total grade for every respondent at each wave: *delinquency seriousness at wave 1, delinquency seriousness at wave 2, and delinquency seriousness at wave 3*. The scale for this delinquency variable was from 0-19. The distributions of delinquency seriousness at three waves are presented in Figure 1 to Figure 3.

Figure 1 Distribution of delinquency seriousness at wave 1

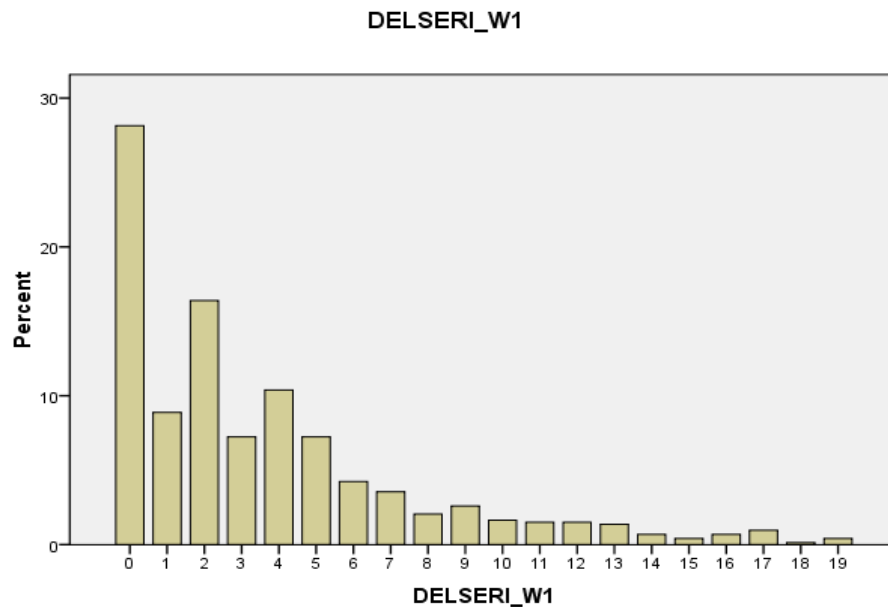


Figure 2 Distribution of delinquency seriousness at wave 2

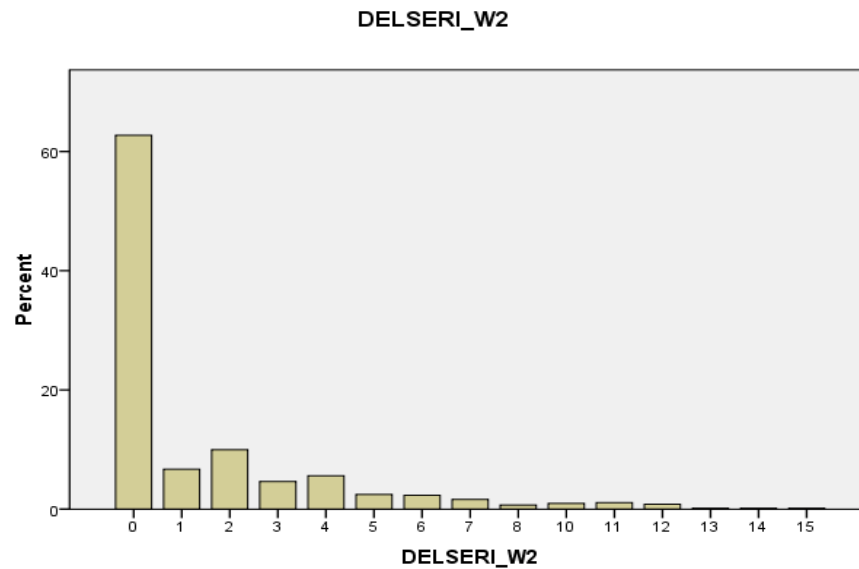
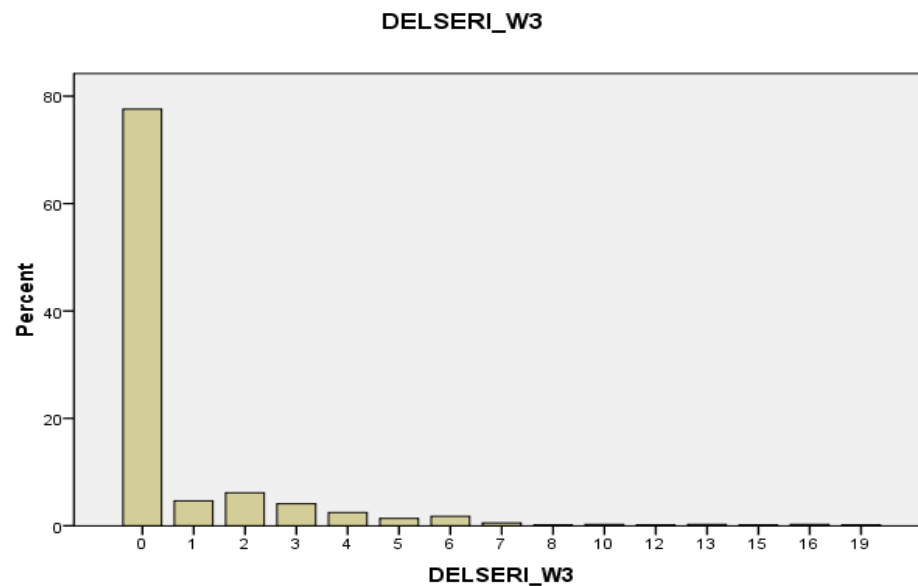


Figure 3 Distribution of delinquency seriousness at wave 3

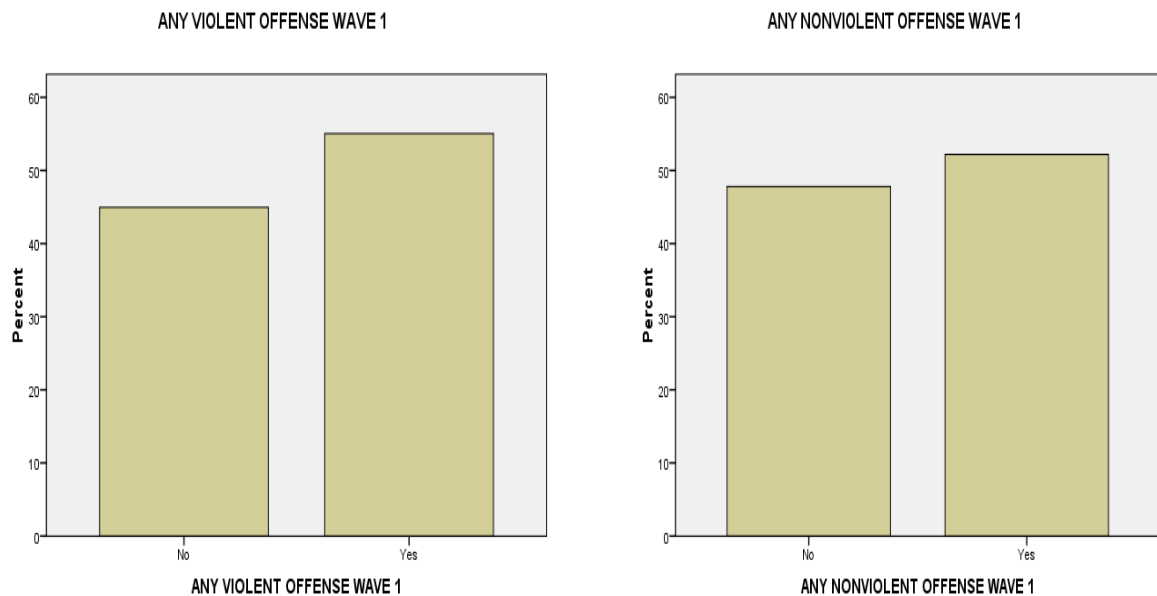


Non-violent offending and violent offending variables:

For research question 3, to examine the relationships between each out-of-home care service and delinquency patterns, *non-violent offending* and *violent offending* were dependent variables. Non-violent crime variables included behaviors of deliberately

damaged property, steal something worth less than \$50, steal something worth more than \$50, go into a house or building to steal something, sell marijuana or other drugs. And violent offending variables included behaviors of hurt someone badly enough to need medical care, use or threaten to use a weapon to get something, take part in a group fight, pull a knife or gun on someone and shoot or stab someone. These two variables were created over all three waves. If the respondent answered that he/she engaged in any violence or nonviolence behavior, the variable was coded as 1, if he/she answered as no, variables were coded as 0. The distributions of violent offending and non-violent offending are presented in Figure 4 and Figure 5.

Figure 4 Distribution of violent and non-violent offending at wave 1



Independent variables

There is a high risk of committing criminal assault among foster care children, and an increased number of foster home placements correlates with increased number of delinquent behaviors (Runyan & Gould, 1985). Also, youth who were placed in kinship care at an early age have less placements and less behavior problems by comparison to nonkinship care placements (Rubin, Downes, O'Reilly, Rekonnen, Luan, & Localio, 2008; Webster, Barth, & Needdell, 2000). However, we do not know the general delinquency patterns for different types of out-of-home care experiences. How is the life transition after age 17 for out-of-home care youth affected, as this is an age where delinquency often occurs?

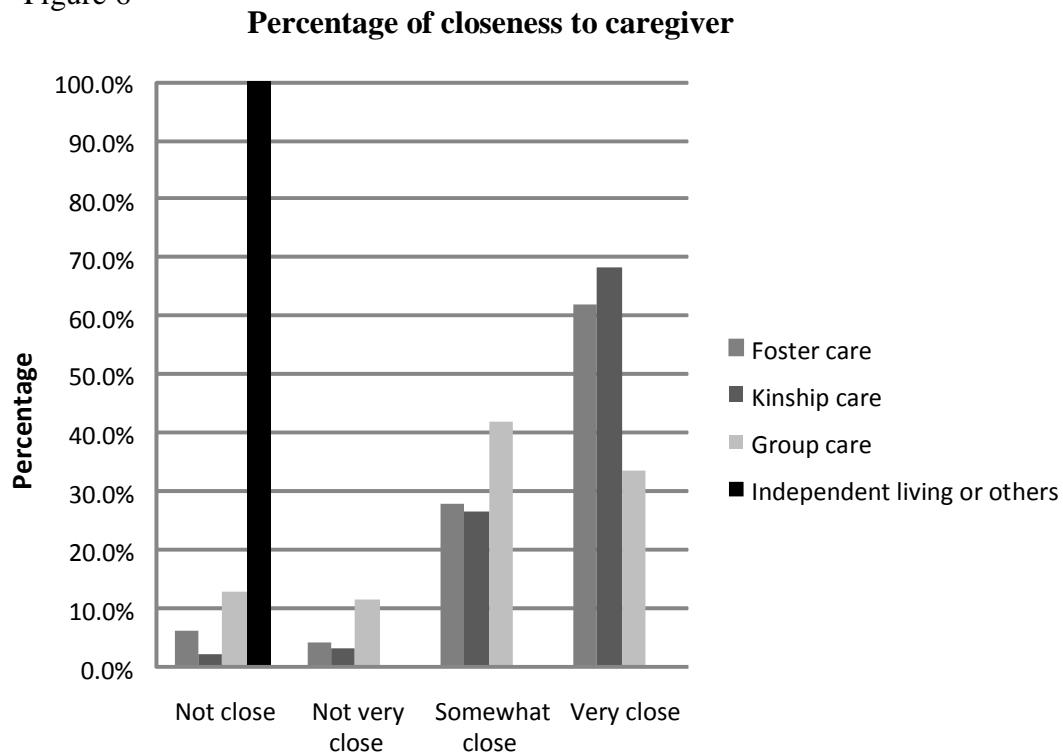
Foster care at wave 1, kinship care at wave 1, group care at wave 1 and independent living or other care at wave 1

As the most important independent variables used in all three research questions, out-of-home care placement types in this study were divided into four categories: traditional foster care, kinship care, group care, and independent living or other care. Every respondent in this study was placed in one of the four placements, and a dummy code for foster care, kinship care, and group care was created to compare to the reference group of independent living and other care. All of these variables were dichotomous variables, and only present at wave 1 when youth were 17-18 years old.

Caregiver closeness at wave 1

Theoretically, caregiver closeness plays an important role in youth behavior transition. There are 4 closeness levels for respondents: not close(1), not very close(2), some what close(3), and very close(4). All respondents answered this question, and there was no missing data. Figure 1 of caregiver closeness in different types of placements presents as a bar diagram.

Figure 6



It is clear that more than half of youth who were in foster care and kinship care reported that they were very close to caregivers, and 40 percent of youth who were placed in group care had somewhat close relationships with caregivers. What is a more noticeable ratio is that all youth who were in independent living or other care responded as not having close relationships with caregivers, perhaps because many were completely and legally emancipated from unfortunate circumstances.

Age at first time entry foster care

According to the literature review, youth age at entry and behavior stability have strong correlation. In this study, age at first time of entering foster care was considered as an important variable to examine out-of-home care youth delinquency patterns. In my study, I used the variable of “age at first time entry foster care” drawn from the original data set. All 732 youth at wave 1 answered this question. All the respondents were asked this question by setting age 12 as reference age. The answer of age less than 12 was coded as 0, age more than 12 was coded as 1 and there was no missing data.

Total number of foster care and group home placements at wave 1

This variable represents how many placements youth had before age 17. Similarly, I obtained this variable from the original data set and the five placements were set as reference number. Less than five placements was coded as 0, and five or more placements was coded as 1. There are 727 valid answer out of 732 total, and there are 5 missing respondents.

Delinquency seriousness at wave 1 and Delinquency seriousness at wave 2

These two variables were set as dependent variables in research question 2, because I wanted to test delinquency seriousness as an outcome at wave 1 and wave 2. But for further analysis, these two variables were also set as independent variables since I intended to test the continuity of delinquency seriousness, and at wave 2 and wave 3. Here, they were both predictors. The scale for this delinquency variable was from 0-19.

Gender and Race

These two variables were set as control variables, because youth delinquency is significantly related to these two indicators. “Gender” and “Race” variables existed in original data set. Female was codes 0 and male was coded 1. The race variable was composed of Hispanic, Black, White and other race. For each race, if respondents answered “Yes”, they were coded 1; if they answered “No”, they were coded 0. There was no missing data for both variables. A dummy code for Black, Hispanic and other race was created to compare to the reference group of White. In the original data, the variable of other race was created based on distribution of race in sample. It contained 0.5% Asian/ Pacific Islander, 1.4% American Indian/ Native Alaskan, 9.7% mixed and 0.5% others.

Missing data management

In the original study, there were 767 youths who met the sample selection criteria as identified. At wave 1, 732 interviews were completed, and 730 persons responded to delinquency items with 2 respondents who did not answer any questions about delinquency. At wave 2, 603 respondents were located and 574 were valid delinquency respondents with 158 persons who did not answer any questions about delinquency. At wave 3, 590 respondents were follow-up located, and there were 504 valid delinquency respondents with 228 respondents who did not answer any question about delinquency. At each wave, those youth who did not answer delinquency questions reflect those who refused or did not respond to the questions on criminal behavior. Because my analysis was to examine self reported offending at each of the three waves, only those youth who

answered the questions about criminal behavior were included. Therefore, for the regression analysis I only used the 730 respondent in wave 1, 574 respondents in wave 2, and 504 respondents in wave 3 with valid outcome data. Compared the respondents who did not answer any questions at wave 2 but answered at wave 1, 69 out of 158 missing respondents were reported arrested during wave 1 to wave 2, and the rest of 89 did not follow the continuous study. I excluded the youth who did not answer any delinquency questions.

For those youth who participated in interviews and answered questions about delinquency, but skipped questions at random, I recoded these variables. The missed questions were mainly about the specific delinquency items. For example, youth answered other behavior items but only skipped “steal something more than \$50”, in this case, I recoded all the answers into two categories. The “Yes” answer was coded 1, and “No” and “Not answer” were coded 0. Other questions which youth usually skipped were “violent offending” and “non-violent offending” questions. A lot of youth skipped answers on whether they conducted non-violent or violent offending, but they already answered related questions, such as “hurt someone badly enough to need medical care”. So I recoded these two variables by summing the number of non-violent or violent delinquency behaviors they admitted to. Then I recoded these two variables into the same variables with new values. Keeping the “No (0)” answer still as “0” value, I replaced the additive values of “1,2,3,4,5” into “1 (Yes)” value. In this way, all the youth who admitted related delinquent behavior were included in non-violent and violent offending questions. There were 403 youth at wave 1 engaged in violent offending while 382 youth engaged in non-violent offending.

Also, I found only 5 cases missed in the variable “total number of placements”, so I deleted them due to the tiny proportion.

The descriptions of all dependent and independent variables are shown in Table 1 and Table 2. For those variables repeated in all three waves, I only described them in wave 1.

Table 1 **Dependent variable description**
(show wave 1 as example)

Variable	Frenquency	Standard deviation
Deliberately damaged property	Yes=153 No=577 Blank=2	0.41
Steal something worth less than \$50	Yes=271 No=459 Blank=2	0.48
Steal something worth more than \$50	Yes=73 No=657 Blank=2	0.30
go into a house or building to steal something	Yes=82 No=648 Blank=2	0.32
Sell marijuana or other drugs	Yes=152 No=578 Blank=2	0.41
Hurt some one badly enough to need medical care	Yes=279 No=451 Blank=2	0.49
Use or threaten to use a weapon to get something	Yes=74 No=656 Blank=2	0.30
Take part in a group fight	Yes=257 No=473 Blank=2	0.48
Pull a knife or gun on someon	Yes=93 No=637 Blank=2	0.33
Shoot or stab someone	Yes=40 No=690 Blank=2	0.23
Delinquency seriousness	(scale from 1-19) Blank=2	3.97
Non-violent offending	Yes=217 No=221 Blank=294	0.50
Violent offending	Yes=232 No=206 Blank=294	0.50

Table 2 **Independent variable description**

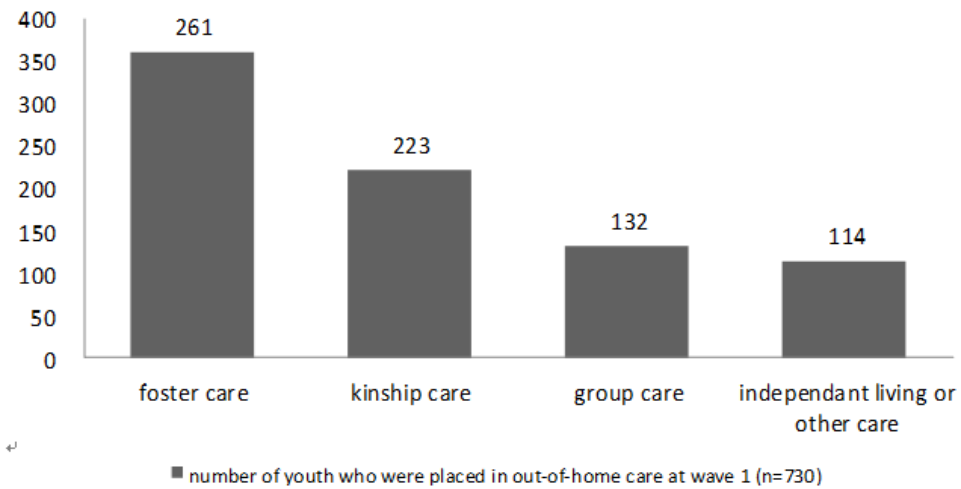
Variable	Frenquency	Standard deviation
Foster care	Yes=262 No=470	0.36
Kinship care	Yes=223 No=509	0.46
Group care	Yes=132 No=600	0.38
Independent living or other care	Yes=115 No=617	0.36
Caregiver closeness	Not close=154 Not very close=33 Somewhat close=187 Very colse=358	1.17
Age at first entry	Less than 12=355 12 and older=377	0.50
Total number of foster care and group home placement	Less than 5 placements=403 Five or more placements=324 Blank=5	0.50
Delinquency seriousness at wave 1	(scale from 1-19) Blank=2	3.97
Delinquency seriousness at wave 2	(scale from 1-19) Blank=158	2.80
Gender	Female= 380 Male=352	0.50
White	Yes= 226 No=506	0.46
Black	Yes= 417 No=315	0.50
Hispanic	Yes= 63 No=669	0.28
Other race	Yes= 89 No=643	0.33

CHAPTER 4. ANALYSIS

Simple comparison

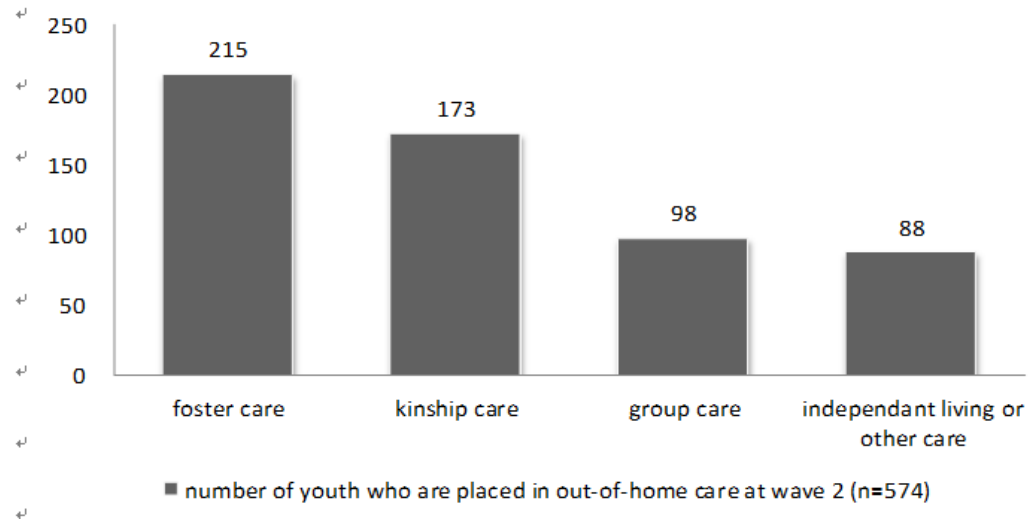
Several simple comparisons were made for research question 1 in order to gain a clear idea of behavior differences among foster care, kinship care, group care and independent living and other care youth. Simple comparisons were employed in this study rather than t-test, because there are total 10×4 groups to compare (10 specific behavior items and 4 types of out-of-home care). Also, what I wanted to clarify is the most noticeable behavior differences and patterns. So I chose simple comparisons rather than independent t-tests. Before conducting simple comparisons, the respondent numbers for each wave needed to be balanced since the proportions of children placed in each type of out-of-home care were not equal. The proportions of youth in each placements that engaged in each of 10 delinquent behavior were weighted according to the proportions that youth were in out-of-home care situations at wave 1. And at wave 2 and wave 3, the proportions of youth who responded to delinquency questions in each placement were different from wave 1. The number of youth in each type of out-of-home care over three waves are shown in Figure 7 to Figure 9.

Figure 7



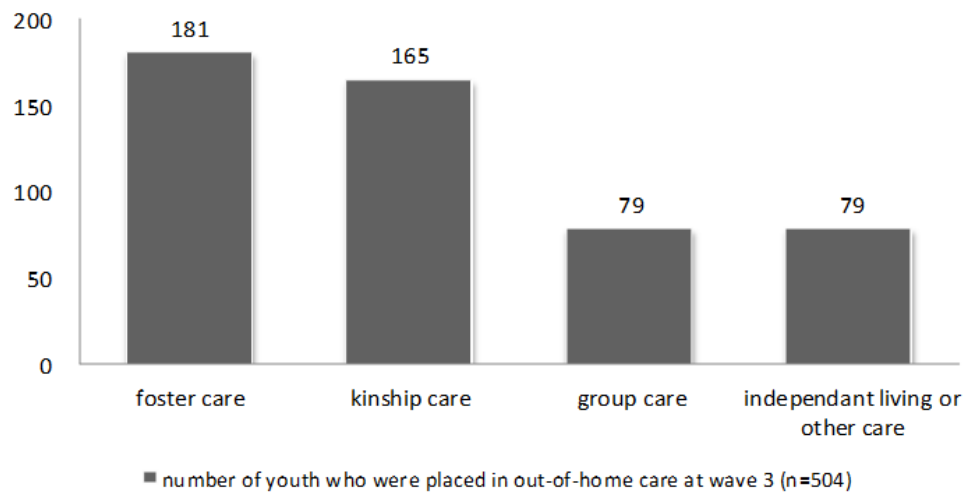
At wave 2, a total of 574 of 603 youth responded to delinquency items. The number of youth who were placed in any type of out-of-home care is presented in Figure 3.

Figure 8



At wave 3, a total of 504 of 590 responded to delinquency items. The number of youth who were placed in any type of out-of-home care is presented in Figure 4.

Figure 9



Linear regression

The research question 2 was during the transition from adolescence to early adulthood, do out-of-home care living experiences, including different placements life, caregiver closeness, age at entry and number of placements, have significant relationship with youths' delinquency seriousness? Concomitantly, I tested the relationships between out-of-home care experience at age 17 and delinquency seriousness. I estimated linear regressions to test these relationships at all 3 waves.

Recall that seriousness was a composite score of crimes committed by ratings of their seriousness. At wave 1, delinquency seriousness was set as a dependent variable with the following independent variables: four dummy coded variables of foster care, kinship care, group care and independent living or other care (with independent living or other care as the reference category), age at first entry, number of placements, and caregiver closeness. The dummy dichotomous control variables of Hispanic, Black and other race were put into regression with a reference group of White.

At wave 2, a linear regression was modeled to test the relationship between delinquency seriousness with out-of-home care experience. Then by including the variable delinquency seriousness at wave 1, which was the dependent variable in the first linear regression, the second regression tested the continuity of delinquency seriousness. So at wave 2, the dependent variable was delinquency seriousness at the age of 19-20 with the independent variables of foster care, kinship care, group care and independent living or other care, age at first entry, number of placements, caregiver closeness and logged delinquency seriousness at age 17-18. This was done to determine whether the independent variables were correlated with subsequent change, or the residual, of delinquency seriousness by controlling for initial seriousness.

For the next wave, I set delinquency seriousness at age of 21 as the dependent variable and added delinquency seriousness at age of 17-18 and 18-19 as independent variables. I controlled the variables of race and gender to test if foster care experience, kinship care experience, group care experience, age at first entry out-of-home care, number of placements and caregiver closeness affected youth's early transition into adulthood.

Logistic regression

Research question 3 was when youth were in out-of-home care (wave 1), do different life circumstances have strong relationships with youth non-violent offending and violent offending differently?

To test this question, I estimated a logistic model with independent variables foster care, kinship care, group care and a reference group of independent living or other care;

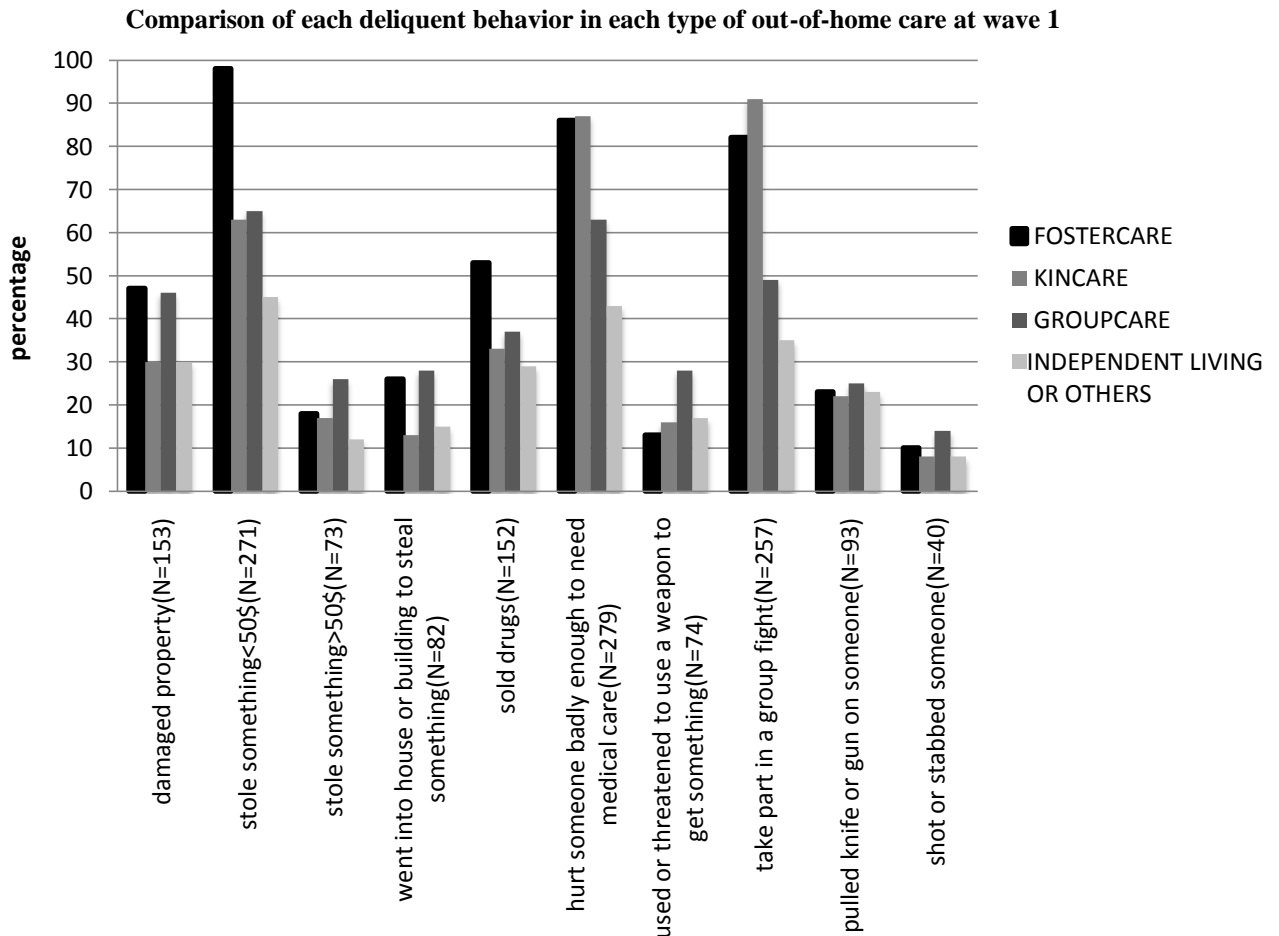
and non-violence and violence were dependent variables. Because the binary response variable of non-violent delinquency and violent delinquency have two outcomes (1=yes and 0=no), I estimated a logistic regression model. Logistic regression analysis was for wave 1, since the independent variables of foster care, kinship care, group care and independent living or other care, were wave 1 variables, I tested the relationships when youth were placed in out-of-home care at age of 17-18 with their delinquency behavior pattern for violent and non-violent delinquency at that time.

CHAPTER 5. FINDINGS

Sample comparisons

By using questions that asked respondents whether they engaged in any type of delinquent or criminal behaviors during the past year at wave 1, I calculated the percentage of each delinquent behavior based on the total number of youth who were placed in each out-of-home care situation. The delinquent or criminal behaviors include crimes ranging from minor property delinquency, to moderate property crime, to violent and physical injury crimes. These simple comparisons reveal longitudinal and static differences, as Figure 5, Figure 6 and Figure 7 show.

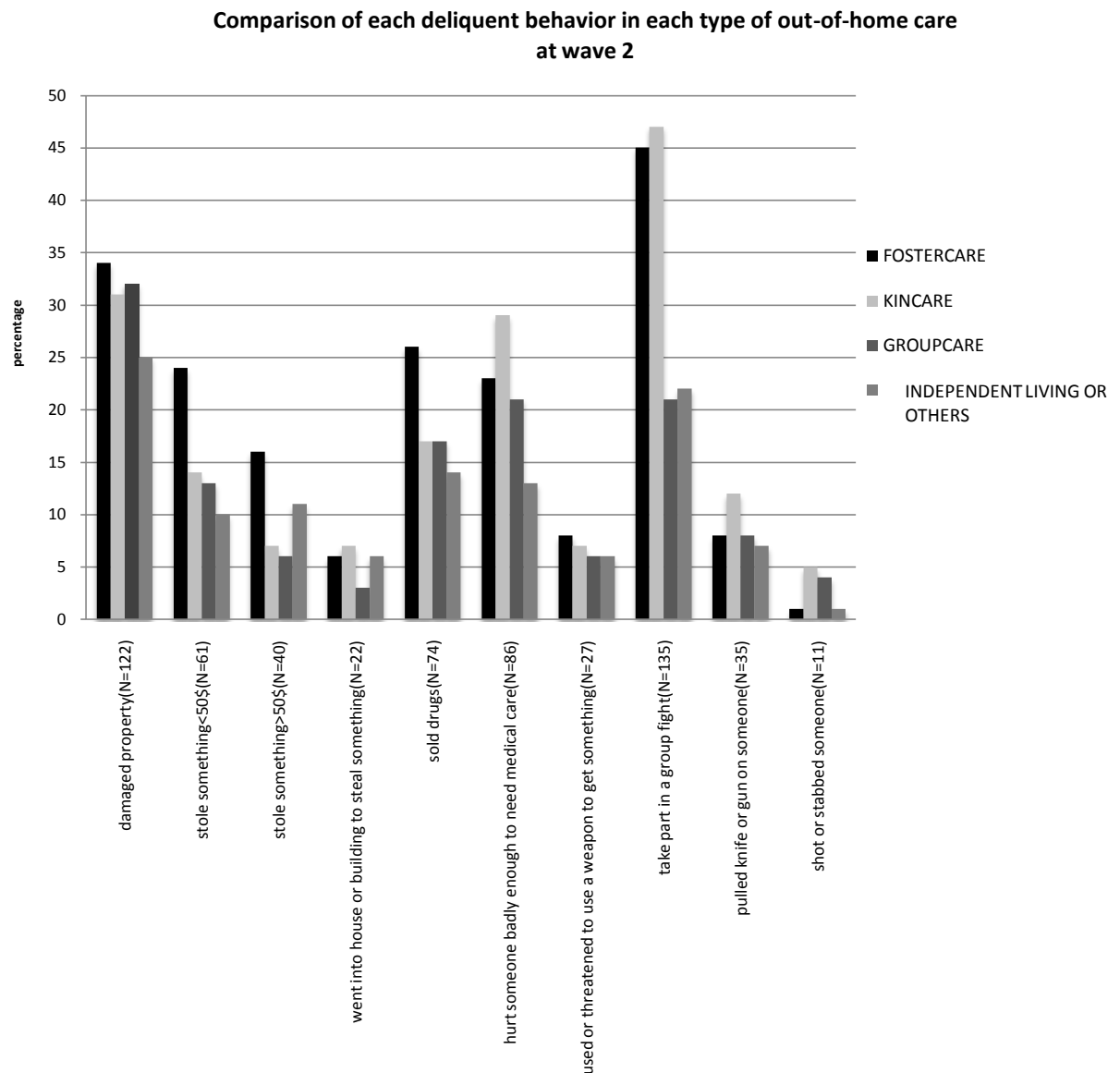
Figure 10



At wave 1, as Figure 10 shows, there are several noteworthy findings:

- 1) Compared to the other delinquent behaviors, stealing something more than \$50, hurting someone badly enough to need medical care, and taking part in group fights have the highest percentage of youth engagement. Nearly 30% of youth who were placed in foster care, kinship care, group care and dependent living or other care engaged in any of these three delinquent behaviors.
- 2) Among these ten delinquent or criminal behaviors, youth who were placed in group care engaged in damaging property, stealing something less than \$50, stealing something more than \$50, going into house or building to steal something, selling drugs, hurting someone badly enough to need medical care, using or threatening to use a weapon to get something, and shooting or stabbing someone have the highest percentage involvement compared to the other three out-of-home care situations. Notably, about half of youth in group care engaged in stealing something less than \$50 and hurt someone badly enough to need medical care.
- 3) At age 17-18, youth who were placed in kinship care have the highest percentage of engaging in group fights, and youth who were placed in independent living or other care have a relatively high percentage of engaging in pulling a knife or gun on someone.
- 4) Generally, youth who were placed in foster care have a relatively low percentage of engaging in any delinquent behavior.

Figure 11



In wave 2 (Figure 11), there are several noteworthy differences:

1) The decreased percentage (y- axle scale at wave 1 is from 0% to 60%, at wave 2 it is from 0% to 35%). The drop from wave 1 to wave 2 suggests that out-of-home care youth engaged in less delinquent or criminal behaviors during the transition from adolescence time to young adulthood (from 17-18 years old to 19-20 years old).

2) Different from wave 1, stealing something more than \$50 and hurting someone badly enough to need medical care dropped in frequency, while taking part in a group fight still shows a high level of engagement for all out-of-home care groups.

3) In wave 2, there is a high percentage of youth engaging in damaging property. About 33% youth in group care and more than quarter of youth who were in independent living or other care conducted this behavior.

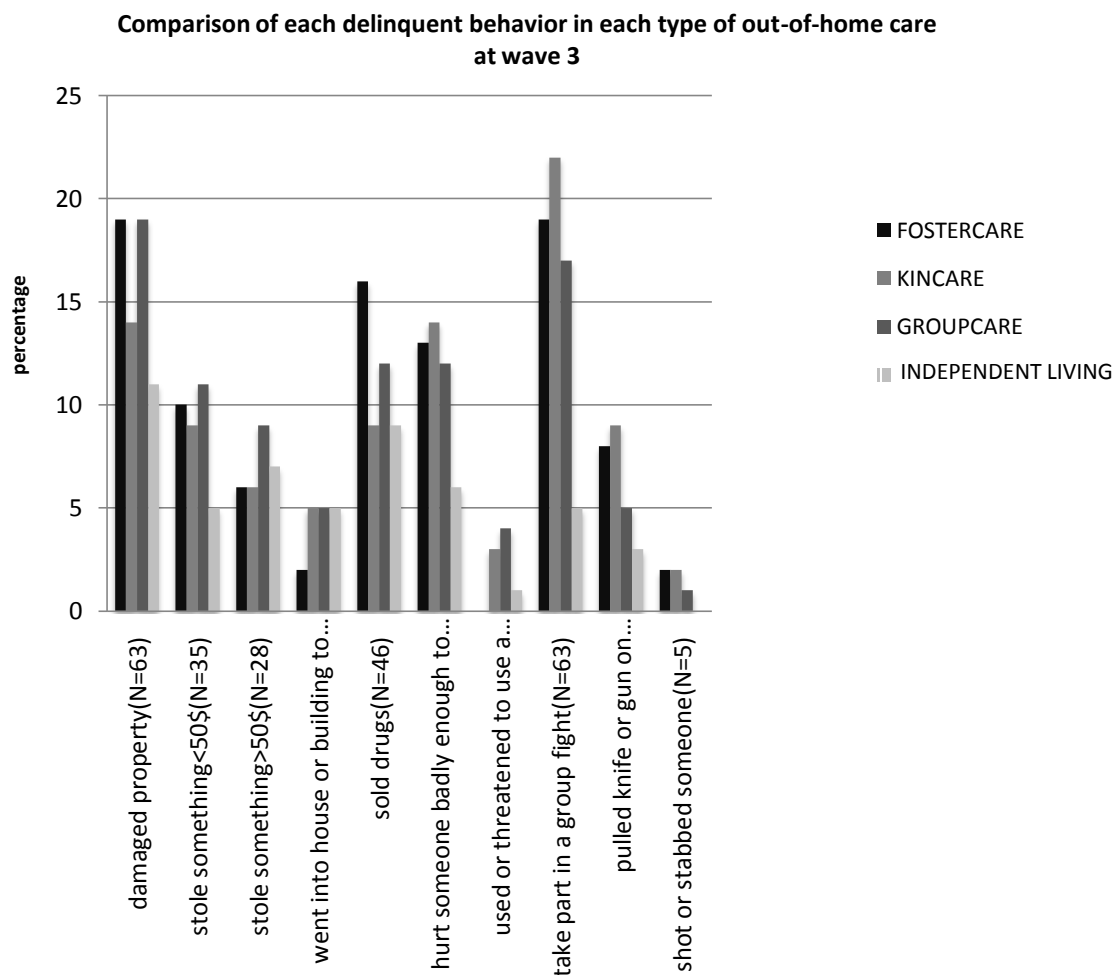
4) In addition, youth who were placed in group care show a higher level engagement than other youth in damaging property, stealing something less than \$50, selling drugs, and hurting someone badly enough to need medical care.

5) At wave 2, youth who were placed in independent living or other care show a relatively high proportion of damaging property, stealing something more than \$50, going into a house to steal something, selling drugs, hurting someone badly enough to need medical care and taking part in group fights.

6) Youth who were placed in foster care and kinship care show less delinquent or criminal behaviors at wave 2, but youth who were placed in kinship care consistently showed a high percentage of engaging in group fights.

By comparison to finding 4 in wave 1, youth who were placed in foster care and kinship care showed consistent low delinquent or criminal behavior involvement from age 17-20. However, youth also showed high engagement in hurting someone badly enough to need medical care and taking part in a group fight. And generally, youth who were in foster care engaged in more property delinquency than those in kinship care, while youth who were in kinship care engaged in more physical delinquency than those in foster care.

Figure 12



In wave 3 (Figure 12), there are several noteworthy findings:

1) At wave 3, when youth who were earlier placed in out-of-home care were 21-22 years old, the overall percentage of delinquent or criminal behaviors has reduced from 35% at wave 2 to 25%.

2) More apparently high delinquent or criminal behavior patterns are found among youth placed in group care; this group engaged in damaging property, stealing something less than \$50, selling drugs, hurting someone badly enough to need medical care, and taking part in a group fight at high rates.

3) Youth who were placed in foster care and kinship care still show a low percentage of engaging in delinquent or criminal behaviors.

4) In addition, the percentage of youth who were from independent living or other care stealing something more than \$50 remained consistently high from both wave 2 and wave 3.

In general, youth from out-of-home care engaged in a small percentage of delinquency. However, youth who were in group care still showed higher involvement in several delinquency items than the other three groups.

To overview these results from wave 1, wave 2 and wave 3, all youth from foster care, kinship care, group care and independent living or other types show a decreasing offending engagement from one age to the next. The main differences exist in the diversity of delinquent or criminal behaviors participation and there are distinct behavior types among each type of out-of-home care. Youth who were placed in group care and independent living or other care show a consistently high percentage of delinquent or criminal behaviors, especially for the minor property crimes and other minor violent delinquency. Damaging property, stealing something less than \$50, selling drugs, hurting someone badly enough to need medical care, and taking part in group fights has a large proportion of involvement for all types of out-of-home care. From age 17-22, violent delinquent behavior reduced dramatically, except taking part in group fights.

Linear regression

By reference to independent living/ other care group, the first linear regression model tested the relationships between the dummy variables of foster care, kinship care and group care with the dependent variable delinquency seriousness at wave 1. Independent variables also included age at first entry, number of placements, caregiver closeness and control variables of gender and race. The output is presented in table 3.

Table 3 presents the first step of linear regression at wave 1, analyzing how much out-of-home care placements affect youth delinquency seriousness. The adjusted R Square for model 1 equals 0.100, that means the type of out-of-home care placements explains about 10% of the variance in delinquency seriousness when youth were at the age of 17-18. Life experience in independent living/ other care, foster care and kinship care have significant relationships with delinquency seriousness, but only the experience of independent living/ other care has a positive relationship with delinquency seriousness ($t=7.194$). The positive t score of independent living/ other care reveals that the experience of independent living/ other care is a significant predictor and increases the occurrence of seriousness delinquency. The negative t score of foster care ($t=-2.839$) and kinship care ($t=-2.322$) reveal that the experience of foster care and kinship care may reduce the chances that youth conduct serious delinquency.

Table 3

Independent Variable	Model 1			Model 2		
	Standardized Coefficients	t value	Significant area	Standardized Coefficients	t value	Significant area
Independent living wave 1 (reference group)	(3.019)	7.194*	.000	(2.497)	4.530*	.000
Foster care wave 1	-0.146	-2.839*	0.005	0.062	0.841	.401
Kinship care wave 1	-0.119	-2.322*	.021	0.109	1.443	.149
Group care wave 1	0.062	1.320	.187	0.171	2.957*	.003
Gender	0.253	7.109*	.000	0.262	7.472*	.000
Hispanic	-0.030	-0.770	.442	-0.029	-0.741	.459
Black group	0.013	0.315	.753	0.046	1.092	.275
Other race	0.111	2.627*	.009	0.118	2.856*	.004
Age at first entry into foster care				0.093	2.512*	.012
Total number of placements at wave 1				0.136	3.718*	.000
Caregiver closeness				-0.191	-3.494*	.001
R ²	0.108			0.151		
Adjusted R ²	0.100			0.139		
Partial F test				11.79*		

a. Dependent Variable: Delinquency seriousness at wave 1

b. * indicates $P < 0.05$

c. (): unstandardized coefficient

When the variables age at first entry, number of placements, and caregiver closeness are added along with the control variables of race and gender, the adjusted R square

increased from 0.100 to 0.139, indicating that these independent variables as well as type of placement explain about 14% of the variance in youth delinquency seriousness. This is a great improvement in the explained variation, but reveals that placement variables have modest influence. T tests from Table 3 reveal that indicators of independent living or other care ($t=4.530$), group care ($t=2.957$), age at first entry ($t=2.512$), total number of placements ($t=3.718$) and caregiver closeness ($t=-3.494$) have significant relationships with youth delinquency seriousness. Caregiver closeness has a negative effect, but the other significant predictors show positive relationships with delinquency seriousness. This indicates that youth who had experienced in group care or / and independent living/ other care, entered out-of-home care at less than 12 years old, had experienced many placements and had less close relationships with caregivers commit more serious delinquent behaviors.

What is more noteworthy is that when the variables of “age at first entry”, “number of placements” and “caregiver closeness” are added, the variables of foster care and kinship care cease to be significant. The experience in group care becomes significant ($t=2.957$) as a predictor. In addition, the control variables of race and gender, reveal that other race and gender are significant predictors of delinquency seriousness.

Regressions at wave 2 added in only delinquency seriousness at wave 1 as a logged independent variable to predict delinquency seriousness at wave 2. The output is presented in Table 4.

Table 4

Independent Variable	Model 1			Model 2		
	Standardized Coefficients	t value	Significant area	Standardized Coefficients	t value	Significant area
Independent living wave 1 (reference group)	(1.198)	3.552*	.000	(0.717)	0.266	.790
Foster care wave 1	-0.143	-2.437*	0.015	-0.225	-2.824*	.005
Kinship care wave 1	-0.107	-1.819	.069	-0.194	-2.417*	.016
Group care wave 1	-0.021	-0.401	.689	-0.136	-2.207*	.028
Gender	0.282	6.996*	.000	0.172	4.407*	.000
Hispanic	-0.031	-0.684	.494	-0.004	0.092	.926
Black group	0.128	2.779*	.006	0.114	2.507*	.012
Other race	0.064	1.319*	.118	0.014	0.313	.754
Age at first entry into foster care				0.003	0.072	.942
Total number of placements at wave 1				-0.015	-0.396	.693
Caregiver closeness				-0.131	-2.251*	.025
Delinquency Seriousness W1				0.400	9.993*	.000
R ²		0.104			0.244	
Adjusted R ²		0.093			0.229	
Partial F test					25.74*	

a. Dependent Variable: Delinquency seriousness at wave 1

b. * indicates P < 0.05

c. (): unstandardized coefficient

As table 4 presents, the independent variables for foster care, kinship care, group care and independent living or other care explained about 9.3% of the variation in model 1.

The variables of independent living or other care and foster care still were significant predictors of delinquency seriousness at wave 2 when youth ($t=3.552, -2.437$ and -1.819), with only the control variables of gender and race remaining as significant predictors.

After entering the independent variable of delinquency seriousness at wave 1 as well as other independent and control variables, the adjusted R square increased from 0.093 to 0.229, indicating that these independent variables explain about 23% of the variance of delinquency seriousness. In this regression, the independent variables of independent living or other care, age at first entry and number of placement ceased to have significant relationships with the dependent variable. The control variables of gender and Black, and the independent variables of foster care, kinship care, group care, caregiver closeness and delinquency seriousness at wave 1 showed significant relationships with delinquency seriousness at wave 2. When controlling gender and race, the earlier life experience in foster family, kinship family and group care predicted low delinquency seriousness ($t=-2.824, -2.417$ and -2.207). This is not surprising given previous findings.

At wave 3 when youth transitioned from adolescence to early adulthood at the age of 21, the model adds delinquency seriousness at wave 2 as an additional independent variable and predicts wave 3 delinquency seriousness.

Table 5

Independent Variable	Model 1			Model 2		
	Standardized Coefficients	t value	Significant area	Standardized Coefficients	t value	Significant area
Independent living wave 1 (reference group)	(.521)	1.704	.089	(-0.069)	-0.171	.865
Foster care wave 1	-0.046	-0.670	.503	-0.037	-0.372	.710
Kinship care wave 1	-0.031	-0.433	.665	-0.034	-0.340	.734
Group care wave 1	0.045	0.725	0.469	0.023	0.322	.748
Gender	0.237	5.012*	.000	0.141	3.000*	.003
Hispanic	-0.007	-0.126	.900	0.000	0.000	1.000
Black group	0.068	1.256	.210	0.044	0.797	.426
Other race	0.006	0.106	.916	-0.015	-2.274	.784
Age at first entry into foster care				0.031	0.650	.516
Total number of placements at wave 1				0.039	0.836	.403
Caregiver closeness				0.038	0.532	.595
Delinquency Seriousness W2				0.336	7.197*	.000
R ²		0.067			0.172	
Adjusted R ²		0.052			0.151	
Partial F test					13.52*	

a. Dependent Variable: Delinquency seriousness at wave 1 b. * indicates $P < 0.05$ c. (): unstandardized coefficient

In Table 5 we see that the independent variables reflecting placement explain little variation 5% (adjusted R square = 0.052). But after adding other variables, the adjusted R square increased to 0.151 apparently. Table 5 also shows that foster care, kinship care and

group care and independent living or other care have no significant relationship with delinquency seriousness at wave 3. We see that only the control variables of gender and the independent variable of delinquency seriousness at wave 2 have significant relationships with dependent variables; t values are 3.000 and 7.197 respectively. Comparing these two models, we can see that even though the adjusted R^2 increased apparently from model 1 to model 2, the variables related to out-of-home care did not show any significant relationship; only delinquency seriousness at wave 1 and gender are significant. From the above findings, the conclusion is reached that as out-of-home care youth transitioned into early adulthood their behavior was not as affected by the early experience of out-of-home care when they were young. This is partly because those who showed delinquency or criminal problems at age of 21, exhibited continuity with their former behavior problems. The reductions of R square also may reveal a weakening of the effects of childhood conditions on future behavior over time.

Logistic regression

To test whether different types of out-of-home care placement predict violent or non-violent offending patterns, I formed a logistic regression model. Table 6 and 7 show the results from a model predicting violent offending with foster care, kinship care and group care with a reference group of independent living or other care.

Table 6

variable	B	SE	df	Sig	Exp (B)
Foster care	-0.337	0.225	1	.135	0.714
Kinship care	0.178	0.232	1	.444	1.194
Group care	0.586*	0.265	1	.027	1.797
Independent Living or other care	0.176	0.188	1	.350	1.192

a. dependent variable: Violent Offending at wave 1

b. * indicates $P < 0.05$

Table 7

	Violent offending			Odds (Yes to No)
	Yes	No		
Foster care	120	141	261	0.85
Kinship care	131	92	223	1.42
Group care	90	42	132	2.14
Independent living	62	53	114	1.17
	403	327	730	

Table 8

Odd ratios (row /column)	Foster care	Kinship care	Group care	Independent Living or other care
Foster care	1.00	1.67	2.52	1.38
Kinship care	0.60	1.00	1.51	0.83
Group care	0.40	0.66	1.00	0.55
Independent Living or other care	0.73	1.21	1.83	1.00

In Table 6 we see that the dichotomous reference group variable of independent living or other care has no significant predictive power on violent offending at wave 1 in any of its categories; neither do the variables of foster care and kinship care. Only the variable group care has a significant and positive relationship with violent offending. Thus hypothesis H5, H6 and H8 are rejected.

Even though other out-of-home care placements can not demonstrate predictive power on violent offending, we see minor differences among different placements in terms of odd ratios. Table 7 and 8 present odd and odd ratios between every two placement type. By controlling reference group of independent living/other care, foster care youth were 0.73 times less likely to conduct violent offending; kinship care youth were 1.21 times more likely to conduct violent offending; group care youth were 1.83 times more likely to conduct violent offending.

Following a similar procedure, non-violent offending was regressed on the independent variables with the reference group of independent living or other care, Table 8 and 9 present the results.

Table 9

variable	B	SE	df	Sig	Exp (B)
Foster care	-0.214	0.226	1	.345	0.808
Kinship care	-0.729*	0.234	1	.002	0.482
Group care	0.660*	0.271	1	.015	1.936
Independent Living or other care	0.283	0.189	1	.135	1.327
a. dependent variable: Violent Offending at wave 1 b. * indicates P<0.05					

Table 10

	Non-violent offending			Odds (Yes to No)
	Yes	No		
Foster care	135	126	261	1.07
Kinship care	87	136	223	0.64
Group care	95	37	132	2.57
Independent living	65	49	114	1.33
	382	348	730	

Table 11

Odd ratios (row /column)	Foster care	Kinship care	Group care	Independent Living or other care
Foster care	1.00	0.60	2.40	1.24
Kinship care	1.67	1.00	4.01	2.08
Group care	0.41	0.25	1.00	0.52
Independent Living or other care	0.80	0.48	1.93	1.00

In Table 9, we can see that the foster care group and the reference group of independent living/other care have no significant relationships with non-violent offending. However, the independent variables of kinship care and group care have significantly positive relationships with non-violent offending. So, by now, I can reject hypothesis of H5 and H8 because there is no support indicating that youth who were placed in foster care and independent living or other care had a greater or less tendency to conduct non-violent offending and violent offending. However, youth who were in group care were more likely to conduct both non-violent offending and violent offending, confirming hypothesis 7. And youth in kinship care were more likely to conduct non-violent offending but had no demonstrable clear tendency to conduct violent offending.

Table 7 and 8 present odds ratios between every placement type. By controlling the reference group of independent living/other care, foster care youth were 0.80 times less likely to conduct non-violent offending; kinship care youth were 0.48 times less likely to

conduct non-violent offending; group care youth were 1.93 times more likely to conduct non-violent offending.

CHAPTER 6. CONCLUSION AND DISCUSSION

In addition to reviewing findings in light of hypotheses, this section discusses significant findings, general conclusion, limitations of the study as well as future study suggestions.

Significant findings

Based on simple comparisons, there are a few significant findings:

The overall delinquent or criminal behavior development of youth in out-of-home care over three waves matches what was found in previous research: the offending pattern curve has highest delinquency level at ages of 17-18 and declines later into early adulthood (Cusick, Courtney, Havlicek, & Hess, 2010). Youth in out-of-home care at age 17 reached a peak of delinquency, and had higher level of some forms of delinquent behavior. Later, at 18-19 years old and in early adulthood at 21 years old, the overall level of delinquency and criminal behavior dropped markedly. This is consistent with an “age-crime curve” indicating that previous delinquent behaviors decrease sharply by the mid-to-late twenties. While delinquency generally showed a decrease, some behaviors (damaged property, steal something worth less than \$50, sell drugs, hurt someone badly and take part in group fight) are more persistent as is seen in Table 12

Table 12

variable	Percentage (%)			Average percent
	(compare to total number of delinquency)			
	Wave 1	Wave 2	Wave 3	
Deliberately damaged property	10.4	19.9	18.8	16.4*
Steal something worth less than \$50	18.4	9.9	10.4	12.9*
Steal something worth more than \$50	5.0	6.5	8.4	6.6
go into a house or building to steal something	5.6	3.6	5.1	4.8
Sell marijuana or other drugs	10.3	12.1	13.7	12.0*
Hurt some one badly enough to need medical care	19.0	14.0	13.4	15.5*
Use or threaten to use a weapon to get something	5.0	4.4	2.4	3.9
Take part in a group fight	17.4	22	18.8	19.4*
Pull a knife or gun on someon	6.3	5.7	7.5	6.5
Shoot or stab someone	2.7	1.8	1.5	2.0

a. * : more than 10 percent

The second intriguing finding is that youth in placed in foster care and kinship care showed a lower delinquency engagement than those in group care and independent living. Some related item by item differences are noteworthy. Youth in foster care at the age of 17-18 engaged more in minor stealing and hurt someone badly, and youth who were in kinship care had the highest level of taking part in group fights at wave 1 and wave 2. The latter finding is particularly intriguing. Recall from the literature review that delinquent youth tend to develop friendships with delinquent groups purportedly because they were rejected from other groups, like classmates, school and family, and were accepted by delinquent groups due to similar interests (Elliott, 1994). Under this thinking, youth who were placed in group care should show the highest level of delinquency and one might suppose that group fighting would be a particular problem. But based on my finding, youth who were in kinship care when they were 16-19 years old had the highest level of group fighting. Even though some studies reveal similar findings for kinship care (Berrick, 1994, 1997 and 1998), this findings still needs future study to find out how kinship care circumstances affect youth group activity.

A third finding that merits discussion is that youth placed in independent living showed a relatively high delinquency level across all three waves and for most of the delinquent behaviors. If we recall that the proportion of youth placed in independent living or other care is about 15% of the total, we see from the descriptive statistics of caregiver closeness variable, that youth placed in independent living did not feel close to caregivers. This situation may have a lasting negative impact for youth behaviors. Independent living services are offered to teach and train out-of-home care youth survival skills that help youth live and work well in adult society. One possible reason for

apparent problem is that youth in independent living services lack positive social support. Unlike those youth in foster care and kinship care, independent living youth have less family involvement and support. Another possible reason is that the caregivers in independent living services may simply supply services as routine and offer only training in basic life skills without the emotional connections available in other situations. Future study or policy may want to explore the defects of independent living services and whether there are due to selection of procession effects.

Hypothesis were tested with linear regression and a review of findings is in order before discussion.

H1: By setting independent living or other care as a reference group, foster care and kinship care and group care have significant relationships with youth delinquency seriousness.

H1-1: Foster care has negative relationship with delinquency seriousness at wave 1, wave 2 and wave 3.

H1-2: Kinship care has negative relationship with delinquency seriousness at wave 1, wave 2 and wave 3.

H1-3: Group care has positive relationship with delinquency seriousness at wave 1, wave 2 and wave 3.

H1-4: Independent living /other care has positive relationship with delinquency seriousness at wave 1, wave 2 and wave 3.

H1: At wave 1, when youth were 17-18 years old, youth whom had the experienced group care and independent living /other care have higher probability of more serious delinquent or criminal behavior. Foster care and kinship care have no clear prective

relationship with delinquency. So H1 is rejected. In light of literature on the subject, it is likely that youth behavior is influenced more by peers, school and community, while attachment to family is weakened at this age. So if youth were placed in out-of-home care at later adolescence, they are exposed to an environment that intensifies this change. Without supportive bonds, out-of-home care youth may be even more likely to absorb the influence from friends, community, and other social environments.

H1-1 and H1-2: Whether the experience of placement in foster care and kinship care predict youth delinquency seriousness was tested at all three waves across. There was no evidence to support that there are significant relationships between foster care and kinship care with youth offense seriousness at wave 1 and wave 3. Only finding from wave 2 indicated foster care has negative relationship with offense seriousness. So H1-1 and H1-2 were rejected. This conclusion disconfirmed my original hypothesis that foster care and kinship care experiences reduce delinquency seriousness because youth gain positive support in these forms of placement.

H1-3: The placement in group care only showed a significant positive relationship with delinquency seriousness at wave 1 and wave 2. And wave 3, the placement in group care did not predict delinquency seriousness. So H1-3 was rejected. This conclusion disconfirmed my original hypothesis, because peer groups which lack of family control were supposed to more likely to engage in delinquent group (Elliott, 1994).

H1-4: The placement in independent living/other care was the only predictor that had a positive relationship at wave 1. This means that placement in independent living or other care predicts more serious delinquency throughout the transition from middle adolescence to later adolescence. But it did not predict offense seriousness in early

adulthood. Consequently, H1-4 was supported. Compared to the other three placement experiences, independent living is the only out-of-home care placement without explicit emphasis on social bonds of youth. This finding might have a significant meaning for preventing youth delinquent or criminal behavior and provides interesting questions for future study. Whether youth delinquency prevention policy should continue to give out-of-home care youth an emancipated living environment, or compulsively place out-of-home care youth in a more conventional living situations modeled on traditional families should be considered seriously and comprehensively in policy formation and future empirical study.

H2: Age at first time entry in out-of-home care has a positive relationship with youth delinquency seriousness at wave 1, wave 2 and wave 3. The older age at first time entry into out-of-home care, the more serious is youth delinquency.

This hypothesis was supported at wave 1. When youth were placed in out-of-home care at older ages, they had more serious delinquent or criminal behavior. This is a noteworthy finding; perhaps, social workers should consider the start time of placement. But there are no social work researchers that have examined the relationship between age at entry to out-of-home care and youth behavior. For future study, this result may suggest that early youth behavior development may be affected by outside social influence, like family environment, school education, and peer influence. If youth from troubled or abusive family situations were placed in out-of-home care service at early ages, their problem behavior may be addressed more effectively. Hence, the child welfare system's

intervention to protect children from continuous family damage at an early stage is very important.

H3: The number of foster care and group home placements has a positive relationship with youth delinquency seriousness at wave 1, wave 2 and wave 3. The more placements that youth were placed in is associated with more seriousness delinquency.

The number of foster care and group home placements negatively affected delinquency seriousness at wave 1 when youth were at 17-18 years old. This result is similar with the results from Ruanyan and Gould's study (1985) and Ryan & Testa's (2005) study. As I argued in the literature review, the number of placements could be a reflection of early life and abnormal behaviors, but also it might reflect a path way that leads to further damage and disruption to living situations that contribute to serious criminal behavior. My finding about a high number of placements positively predicting delinquency seriousness when youth were at the age of 17-18 may support the idea that the number of placements is a reflection of early life and abnormal behaviors. To be more precisely, the number of placements is a reflection of youth delinquency level at age of 17-18. In addition, this finding is buttressed if we overview the findings above. Both the literature review and my findings indicate that youth at age of 17-18, for both general youth and out-of-home care youth, had the highest level of delinquency (Cusick, Courtney, Havlicek & Hess, 2010; Beaver, 2009). Also, over three waves, the variable of "total number of placements at wave 1" was only a significant and positive predictor of delinquency seriousness when youth were at the ages of 17-18. The only confident

interpretation that can make is that youth delinquent behavior determined the number of placements significantly.

H4: Caregiver closeness has a negative relationship with delinquency seriousness. The closer the relationship between out-of-home care youth and the caregiver, the less serious is delinquency.

Caregiver closeness was a predictor of delinquency seriousness in the expected direction across wave 1 and wave 2. This proved that caregivers play an very important role in shaping youth behaviors during out-of-home care life. In addition, this result alerts policy makers that it is not only necessary to put youth from maltreated families into a safe placement, but also essential to ensure that caregivers be trained to parent and respected by youth. According to Courtney and colleagues' study (2001), despite the fact that out-of-home care youth showed positive attitudes and relatively high satisfaction to caregivers, they also showed dissatisfaction with several aspects. Some of them felt lonely, some felt different from other youths, and some felt "no roots" in foster families. They also reported they felt foster family parents did not like them and they knew little about the foster family background. Since the current finding indicated that the closer relationship between out-of-home care youth and the caregiver, the less serious is delinquency, this might indicate that caregiver should not only provide basic life needs to out-of-home care youth, but also need to create a real home environment as much as possible. This is not only a mission to the family who want to adopt, or already adopted a youth, but also the responsibility of social workers to select a well-prepared family. What is more, the training of caregivers should not be only emphasized on general procedural

knowledge or material . The more important training should teach foster care or kinship care parents how to be a real parents emotionally.

H5: Youth who were in kinship care are less likely to conduct violent and non-violent offending.

H6: Youth who were in foster care are less likely to conduct violent offending, but more likely to conduct non-violent offending.

H7: Youth who were in group care are more likely to conduct both violent and non-violent offending.

H8: Youth who were in independent living or other care are less likely to conduct violent and non-violent offending.

The above hypothesis were all rejected except H7, youth who were placed in group care are more likely to conduct violent and non-violent offending, and youth in kinship care is less likely to conduct non-violent offending. The finding from H7 as well as the finding of group care positively predicting delinquency seriousness at age of 17-18, indicate that youth in group care have higher risk in delinquency. Besides these, the results from H5, H6, H8 indicate that youth delinquency pattern cannot be just explained by type of placement, especially given the many considerations that might shape delinquency and/or placement. Youth behavior development is deeply rooted in very complex interactions with individual, family, peers, teachers, neighborhood and many other factors.

General statement and future study suggestion

Out-of-home care youths' delinquency pattern can be analyzed by age. When youth are at age of 17-18 years old, for the predictor of placement, only group care and independent living/ other care had significant and positive relationships with delinquency seriousness. Moreover, youth in group care were more likely engaged in both violent and non-violent offending. Youth in foster care and kinship care had no clear tendency to conduct serious delinquency, and youth in these care situations showed less engagement in delinquency. However, the related foster care experience, such as age at first entry into foster care, total number of placements and caregiver closeness also affect youth delinquent behavior. What is more, some specific delinquency behaviors happened frequently in some out-of-home care placements. For example, youth in group care admitted to the highest level of delinquency, and this is reflected in a number of items; youth in kinship care reported a high percentage of engaging in group fights; youth in independent living/ other care engaged in pulling knife or gun on someone more often.

At the age of 18-19, youth delinquent behaviors can be predicted by being placed in foster care, kinship care and group care as well as caregiver closeness. However, at this age time, all these factors predicted reduced delinquency seriousness. Social bonding theory speaks to these findings (Hirschi, 1969; Krohn & Massey, 1980; Wiatrowski, Griswold, & Roberts, 1981). Social bond theory indicates that people who are attached to family, social norms, involved with peers, and who are involved in conventional activities are less likely to conduct delinquency or crime. Attachment to other peers tends to be as supportive as are parental attachments. This may be also the reason to explain why youth in group care showed negative relationship with delinquency seriousness.

In early adulthood (20-21 years old), all the factors related to former out-of-home care experience showed have no effect on youth behavior. When youth with the experience in out-of-home care transitioned into adults, their behavior was no longer marked by the influence of their former out-of-home care life. At this time, they still engaged highly in several behaviors, such as minor property theft, selling drugs, and taking part in group fights. In general, their delinquent behaviors decreased significantly compared to the previous wave.

A central aim of this study was to find out the specific behavior differences among youth who were in different out-of-home care placements. In short, foster care and kinship played positive role in preventing youth delinquency, and group care and independent living showed many problems. Foster care and kinship care are not without problems, although group care and independent living have no visible positive function on out-of-home care youths' life relative to other categories. The following conclusions discuss the noteworthy problems in each out-of-home care placement type.

Selection problem for foster family

How to select maltreated youth into a suitable foster family is a task that social workers and academic researchers need to consider carefully. It is rare study that researches out-of-home care selection. The general selection process is also rudimentary, as Jill Duerr Berrick (1998) states:

“Foster parents are usually licensed by the county or state, indicating that their homes have been assessed for basic health and safety standards, and that the

caregivers have participated in at least minimal training to provide care and supervision for a child.”(pp. 73)

It is noteworthy that all the requirements of a qualified foster family are only minimal standards. By referring back to the findings of how out-of-home care youth think about their foster family, some felt “no roots” in foster families; some felt foster family parents did not like them and they knew little about foster family background. It seems that foster families may sometimes shirk their responsibility to give out-of-home care youth a new real home and only provide shelter. Consequently, how to select a real home foster family needs more attention. Foster parents should not be judged only on financial capacity, but also should be considered according to family background, attitude to children, education level and other factors. Besides, foster parents should receive training on how to establish healthy relationships with adopted children, how to handle the situation when out-of-home care youth conflicts with foster parents and other common challenges.

The time issue from independent living

Independent living is designed to help out-of-home care youth prepare for self-sufficiency in adulthood. It supplies assistance with money management skills, educational assistance, household management skills, employment preparation, and other preparations for adult life. And as social bond theory states, attachment to work and education may reduce the chance to conduct delinquency. So the advantage of independent living should be marked. But as my study indicates, youth in independent living when they were 17-18 years old were more likely to conduct serious delinquency,

while at age of 18-19 and 20-21 independent living ceased to predict delinquency seriousness. The age variation in when youth begin to receive independent living services needs further analysis.

Future study suggestion

Future study can extend this study in two ways. One is to continue to use this study's data to explore other factors associated with out-of-home care youth delinquency. For example, this study controlled the variables of gender and race to clarify how out-of-home care experience affect youth delinquent behaviors. From the findings, gender and race had significant relationships with delinquency seriousness across all three waves. So future study may look into more detail about how gender and race are associated with youth delinquency.

Another way to extend this study is to explore more deeply about youths' out-of-home care experience using qualitative methodology. In my study, the predictors are based on a fairly small number of numeric measurements which limited explanations and descriptions about out-of-home care life is interpreted by the child. Qualitative method may explore the factors relating to out-of-home care more broadly and precisely and acquire more depth on emotional realities of a difficult situation.

Limitations of these study

A number of things limited this study. The first problem is the missing data. At wave 2, 603 respondents were located and 574 were valid delinquency respondents. There were 158 persons who did not answer any questions about delinquency. At wave 3,

590 respondents were located for follow-up, and there were 504 valid delinquency respondents with 228 respondents not answering any question about delinquency. Those missing respondents and who rejected to answer any question about delinquency may significantly different from those that appears.

The second problem is that delinquent behaviors were limited to ten specific items. These ten specific behavior items perhaps were representative for youth delinquency, but they were still not enough to distinguish the different seriousness of delinquency in detail. Wolfgang and colleagues' research on crime seriousness (1985) ranks criminal or delinquent behaviors with specific environment settings, such as instead of simply saying sell marijuana or other drugs, they distinguished "a person sells heroin to others for resale" and "a person sells marijuana to others for resale" as two different behaviors, and the former is found to be more serious.

The last limitation is that this study's data was based on youth self reports, and there was no data from caregiver or other appraisers' evaluations or official arrest reports for the study sample. Huizinga and Elliott's study (1986) on self report indicates that there are some problems when using self report data. For example, there are problems associated with the use of internal consistency as the measure of reliability and problems with the content validity of self-report measures. So it would be better to supplement data with other sources , such as caregiver reports and official arrest records, to ensure content validity and internal consistency.

Out-of-home care youth's delinquent behavior is not mysterious. Although they are exposed to a higher risk of conducting delinquency or crime due to early

maltreatment experiences, they also are under the protection from out-of-home care service in the child welfare system. Some youth experience out-of-home care negatively and this increases delinquency relatively. Early entry into foster care also predicts more serious delinquency. But also, some positive outcomes and these experience prevent youth from delinquent behaviors, such youth tend to be placed in foster care and kinship care, and to have good relationships with caregivers. The precise mechanisms and characteristics of who does well after placement remain unknown for the present. Hopefully, the findings of this study can have several implications for future policy making and academic research.

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